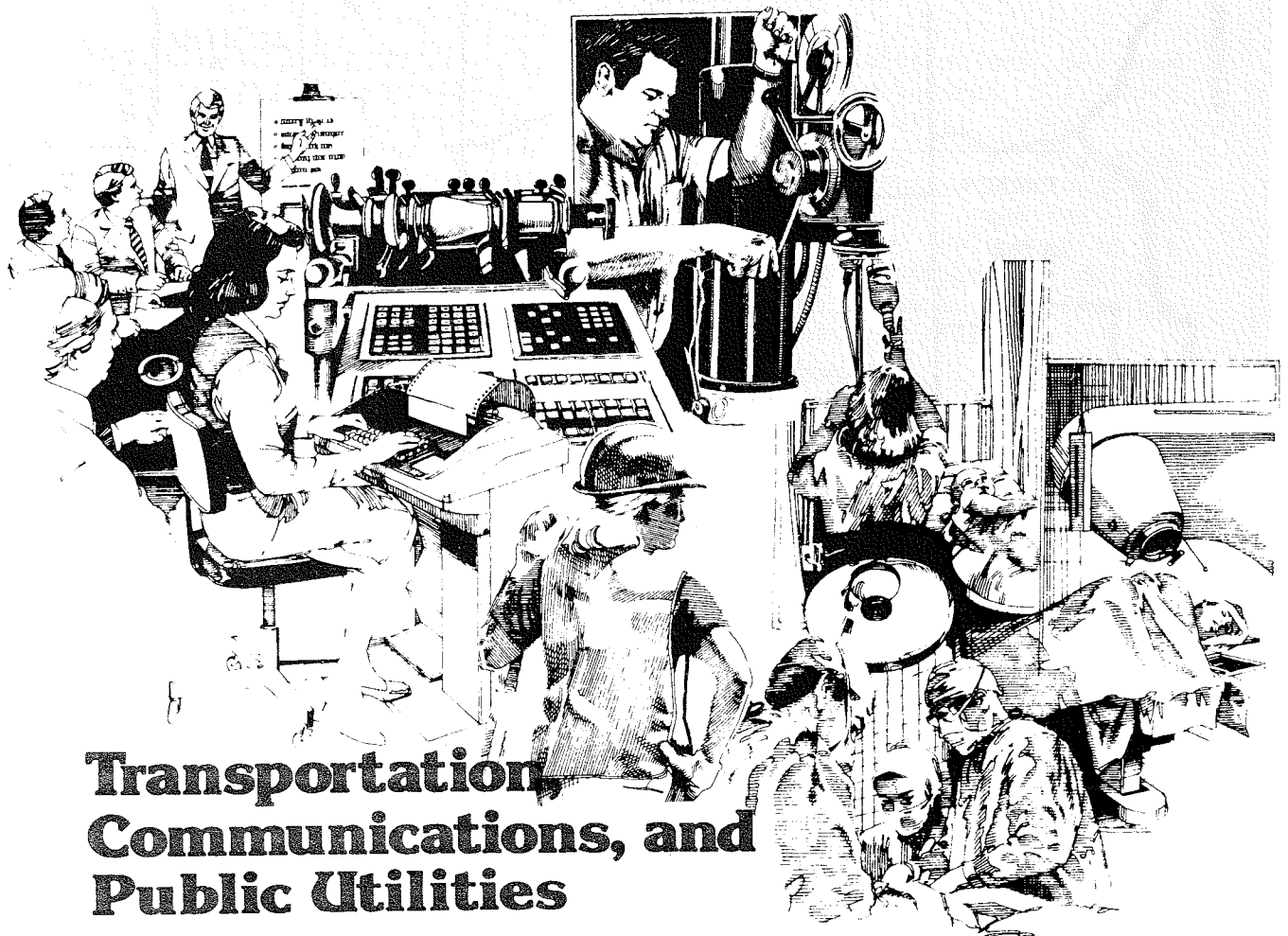


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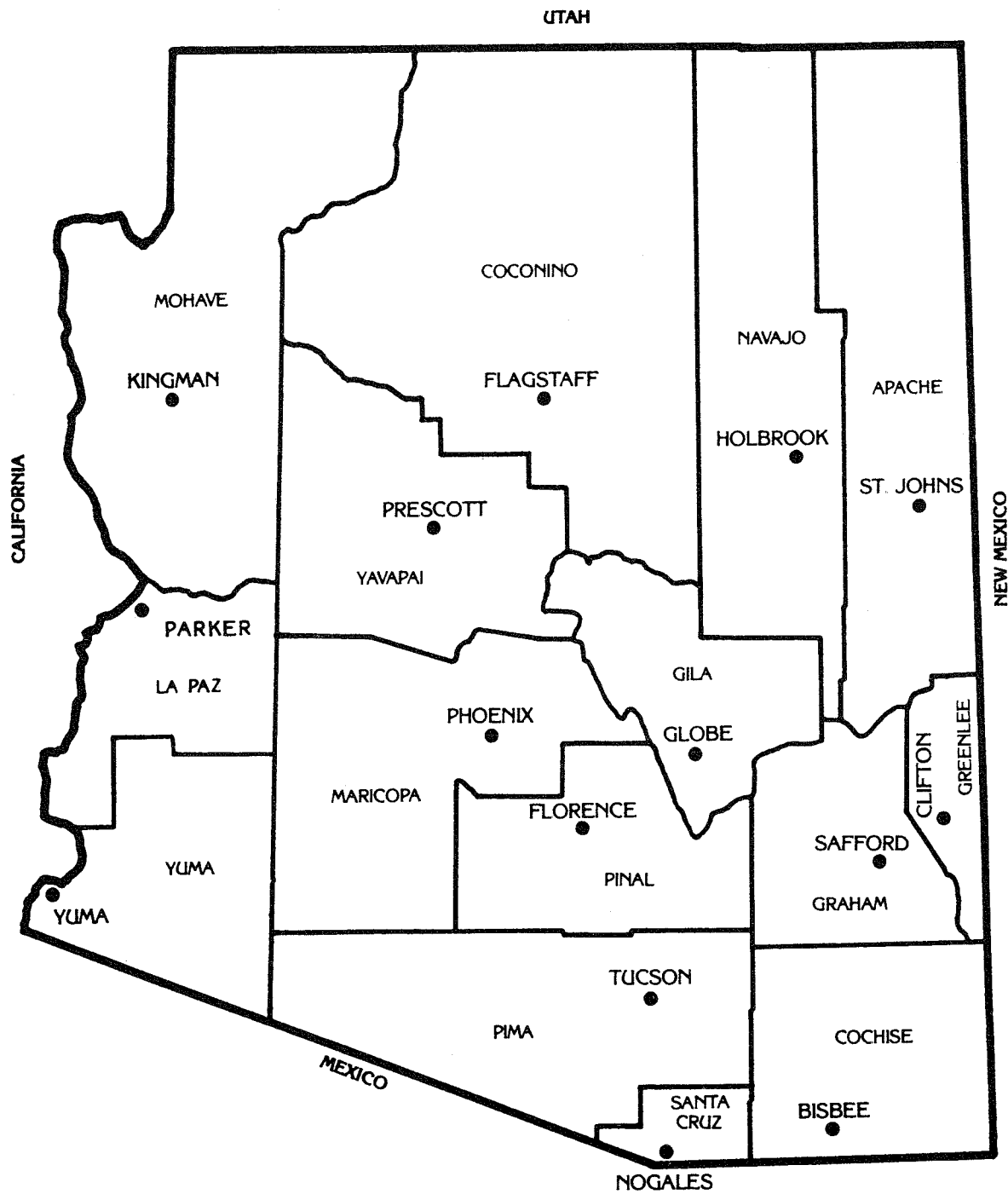
# Arizona Occupational Profile

A Labor Market Information Publication  
of the Department of Economic Security



**Transportation,  
Communications, and  
Public Utilities**

# Map of Arizona



# OCCUPATIONAL PROFILE

The value of current occupational employment information has long been recognized by job seekers, public and private administrators, and those involved in training, recruiting, and counseling. A major source of this information in Arizona is the Occupational Employment Statistics (OES) Program--a cooperative effort between Arizona and the U.S. Bureau of Labor Statistics.

This *Occupational Profile* is one in a series of publications produced from information developed by the Occupational Employment Statistics survey. These publications represent one of several occupational employment information delivery systems incorporating OES survey data. The survey is used to collect employment data, by county, for over 700 occupations in Arizona. From these surveys, which required the cooperation of the Arizona business community, current employment in the various occupations is determined, and from this an occupational outlook is formulated. The *Occupational Profiles* contain the survey findings and examine, individually, the following industries of Arizona:

Construction	Manufacturing
Educational Services	Mining
Finance, Insurance, and Real Estate	Services
Government	Trade
Hospitals	Transportation, Communications, and
Lodging	Public Utilities

For further information, requests, or to comment on any aspect of this program, please write to Arizona Department of Economic Security, Research Administration.

Labor Market Information Publications  
Occupational Employment Statistics, 733A  
P.O. Box 6123  
Phoenix, Arizona 85005-6123

# INDUSTRY INFORMATION

## INDUSTRY DEFINITION

The industry division designated as transportation, communications, and public utilities includes establishments providing passenger and freight transportation, communication services, and electricity, gas, steam, water, or sanitary services.

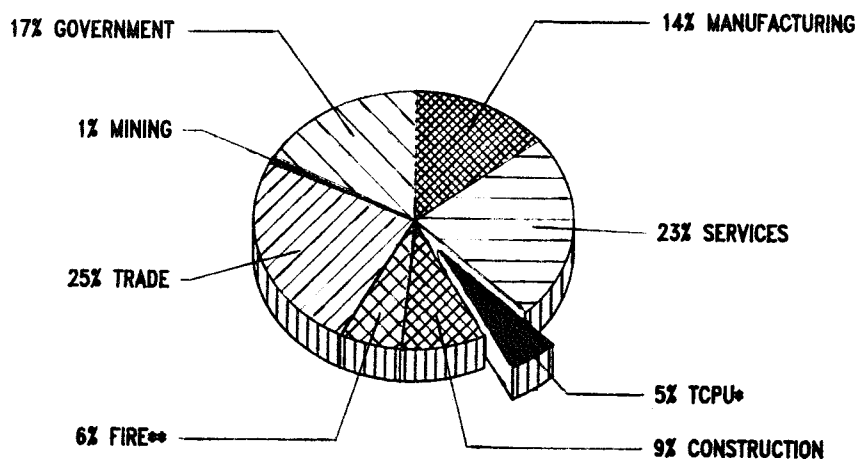
A detailed description of these industries is found in the *Standard Industrial Classification (SIC) Manual* under codes 40 through 49. Employment data for the U.S. Postal Service (SIC code 43) is not included in this publication. In addition, the occupational data includes certain services rendered by state and local government, e.g., irrigation.

Often referred to as the regulated industries, transportation, communications, and public utilities are grouped together because they provide a public service and are often owned or regulated by public agencies. The regulations vary from industry to industry, but, in general, their goals are to ensure fair prices and to see that the public interest is served.

## INDUSTRY CHARACTERISTICS

Employing approximately 66,000 in 1986, the transportation, communications, and public utilities (TCPU) industry accounts for about 5 percent of Arizona's 1.3 million workers earning a wage or salary. Employment in transportation services totals more than 30,000, while those working in the public utilities and communication industries combine for the balance.

## ARIZONA NONAGRICULTURAL EMPLOYMENT 1986

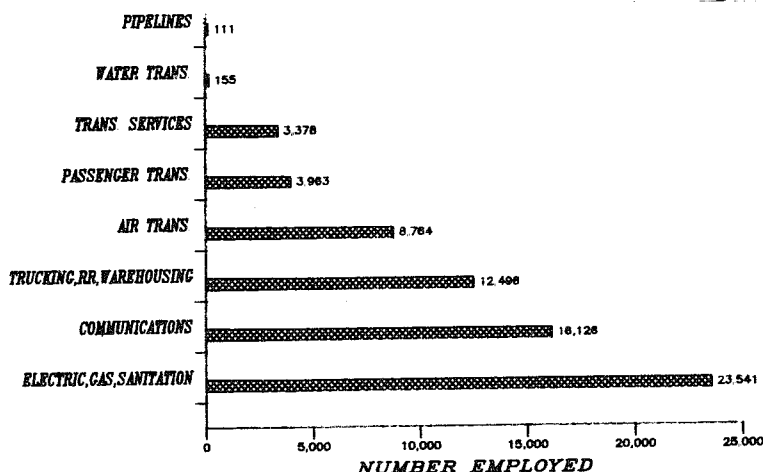


\* TCPU = TRANSPORTATION, COMMUNICATIONS, AND PUBLIC UTILITIES

\*\*FIRE = FINANCE, INSURANCE, AND REAL ESTATE

Predominant in the transportation industry is trucking, which accounts for 39 percent of the sector's employment. At the other extreme is pipeline transportation of coal slurry or petroleum, and water transportation firms, many of which provide sightseeing and river running trips and excursions on the Colorado River.

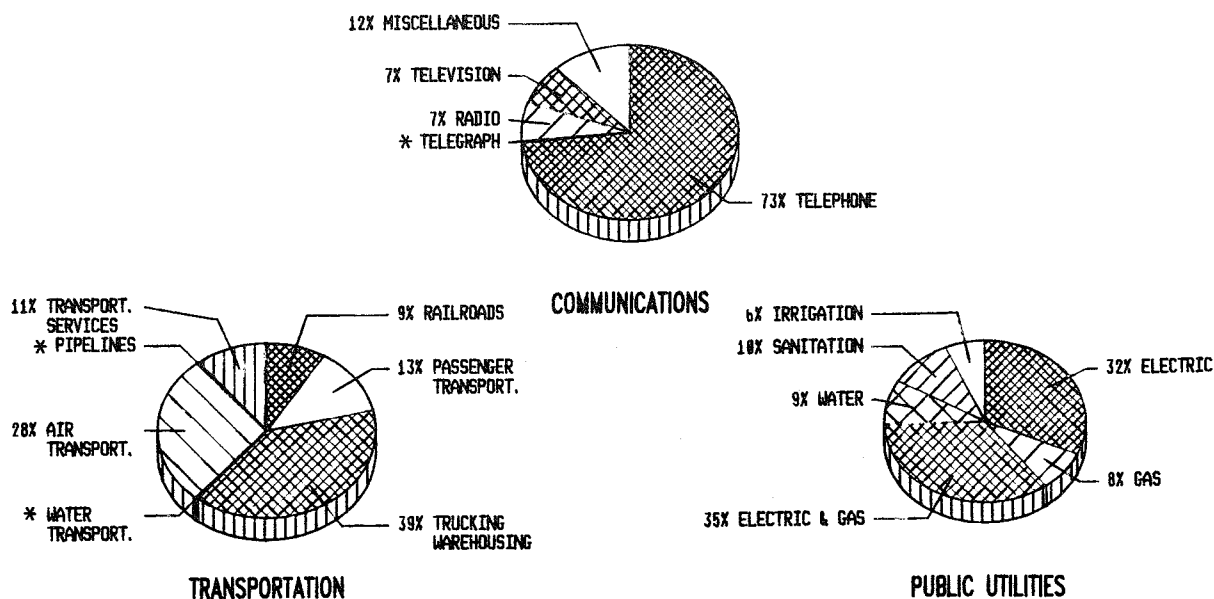
## ARIZONA EMPLOYMENT IN TCPU - 1986



TCPU = Transportation, Communications, and Public Utilities

The public utilities sector includes providers of water, electricity, gas, and sanitary services. In this category, three of every four workers are involved in the production and distribution of energy. And lastly, in the communication services sector, telephone workers likewise claim 73 percent of the total.

## EMPLOYMENT DISTRIBUTION WITHIN TCPU 1986



\* Water Transportation, Pipelines, and Telegraph represent .5%, .4%, and .3%

Geographically, two-thirds of Arizona's TCPU employment is located in Maricopa County where communications and transportation services are concentrated. About 65 percent of the state's communications employees

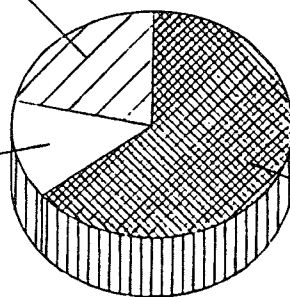
## GEOGRAPHIC DISTRIBUTION OF TCPU EMPLOYMENT

COCONINO 4%  
 APACHE 3%  
 NAVAJO 3%  
 COCHISE 2%  
 MOHAVE 2%  
 PINAL 2%  
 BALANCE 6%

=> 22% NONMETROPOLITAN COUNTIES

14% PIMA COUNTY

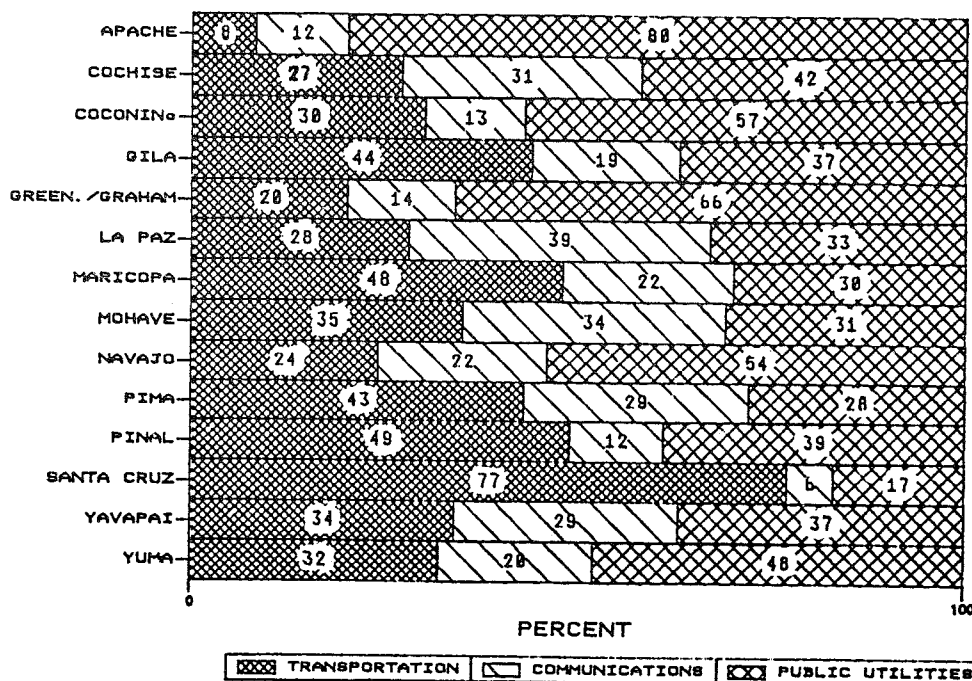
64% MARICOPA COUNTY



and 75 percent of the employment in the airline and trucking industries are located in the Phoenix metropolitan area. In addition to requiring the services of these industries to satisfy the needs of its population, the state's major population center is also the administrative center for many firms in the industry.

TCPU employment in several of the nonmetropolitan counties is dominated by public utilities as indicated by the following graph. Power generating plants in Apache, Coconino, and Navajo counties contribute a great deal to TCPU employment. Dominant in Santa Cruz County is the transportation sector with a high number of truck drivers who service the trade center of Nogales on the U.S.-Mexico border.

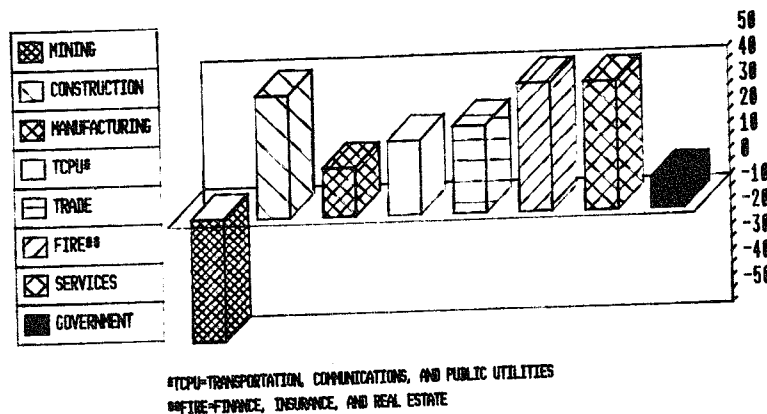
## DISTRIBUTION OF TCPU IN ARIZONA'S COUNTIES



## INDUSTRY TRENDS

Characterized by consistent and predictable growth as it responds to the needs of a growing population and expanding economy, employment in TCPU increased by more than 70 percent during the decade of the 1970s. Although falling short of the average growth rate for all industries, TCPU boasts a year-to-year consistency unmatched by any other major industry division. Even during the most recent recession, TCPU managed a 10 percent employment increase for the period 1980-1982, while the change for all Arizona industries averaged a mere 1.5 percent.

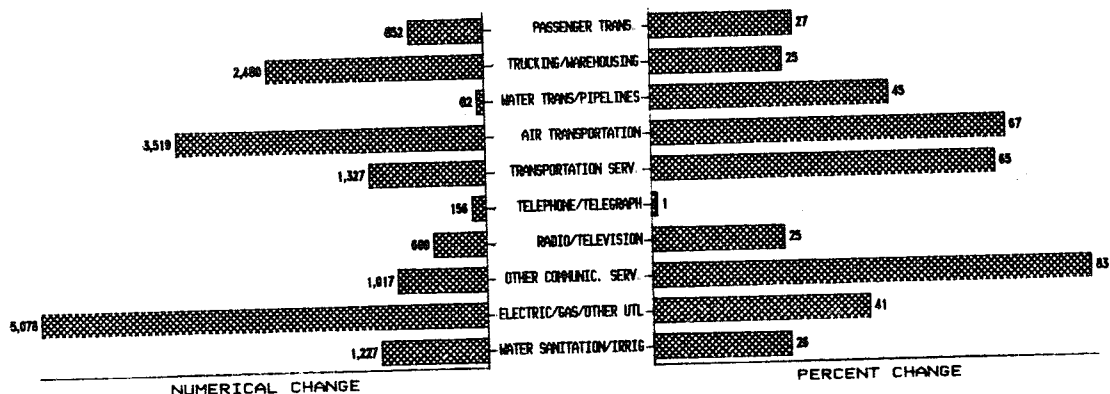
### EMPLOYMENT PERCENTAGE CHANGE IN ARIZONA'S INDUSTRIES 1980-1986



Continuing a trend established in the 1970s, employment in public utilities expanded 37 percent between 1980 and 1986. The producers and distributors of gas registered the highest growth rate, although firms which provide both electric and gas services accounted for the largest employment increase.

Also continuing a trend of strong growth is employment in transportation services, for the most part, as a result of deregulation in 1978. Employment growth in Arizona's air transportation industry increased a robust 67 percent between 1980 and 1986 as carriers expanded services to

### EMPLOYMENT CHANGE IN TCPU 1980 - 1986



the lucrative sunbelt routes. Also registering strong growth were transportation services, led by employment in travel agencies and other businesses providing travel information.

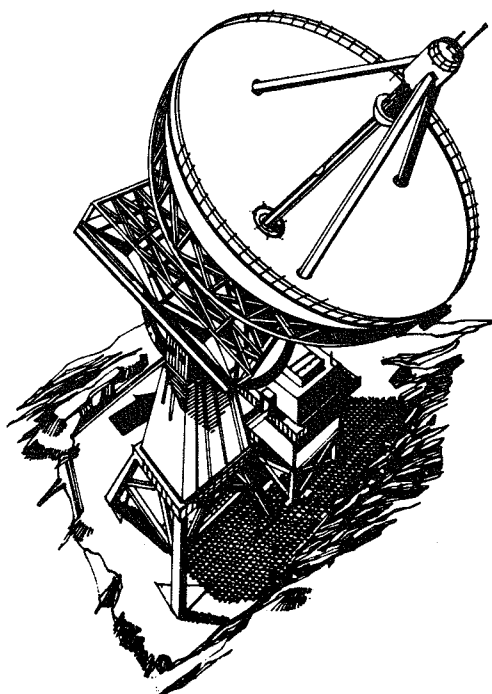
As a group, communication services employment shows modest expansion, especially when compared to growth rates established in the early 1970s. Yet, divisions within communication services experience a wide range of growth rates. For example, employment in firms providing telephone services has remained virtually unchanged since 1980, while providers of miscellaneous communications services, such as cable television services, have seen their numbers nearly double in the six years since 1980.

Through the end of the decade, the transportation industry, which is dominated by employment in motor freight services, will respond to the requirements of the state's expanding economy and the heightened profile of Phoenix and Tucson as regional trade and manufacturing centers. Determined to a large degree by the health of the national economy, however, employment in trucking and in air traffic will react to the cyclical swings of the economy. Over the longer term, however, employment in these sectors will weather cyclical economic cycles. Expected growth in airline passenger and cargo traffic will also counter the potential impact of advanced communications systems that may limit growth in business travel by corporate executives.

In public utilities, employment growth relates primarily to increasing consumption of electricity, gas, and water. Reflecting the industry's capital-intensive nature, however, output and productivity increases are not matched by employment increases of the same magnitude. For example, due to the use of automatic controls and larger more efficient equipment, employment does not increase as fast as the production of electric power.

In communication services, certain sectors will continue to register strong employment growth. Because of technological achievements, however, employment expansion will likely not be as great as might be suggested by the ever-increasing variety of available communication services and the number of subscribers to these services. More assured, though, is the dynamic era that the communication industry has already entered. The structure of the telephone industry, for example, is continuing to change as a result of competition, regulatory reform, and the application of new technology.

For the balance of the decade, data communications will grow faster than the traditional voice services.





Digital electronic switching, satellite communications, local data networks, and fiber-optic transmission are paving the way for a variety of new data communication services, such as electronic mail, on-line information systems, and many high-speed business communication services. As business offices become more automated, data transmissions will grow accordingly.

A similar restructuring is also taking place in television and radio broadcasting. Challenging the dominance of network programming is subscription TV and other services brought about by significant technical advances made during recent years. With the advent of communications satellites, cable television has realized significant increases in viewership. In the wings are other program distribution systems vying for acceptance in this rapidly changing arena. One of these is the multiple distribution service (MDS) which relays TV signals from a central station to receivers installed in hotels, office buildings, and individual residences. And then there is the direct broadcast satellite service (DBS) which, as currently conceived, would relay signals directly to receivers of individual subscribers in the home or workplace.

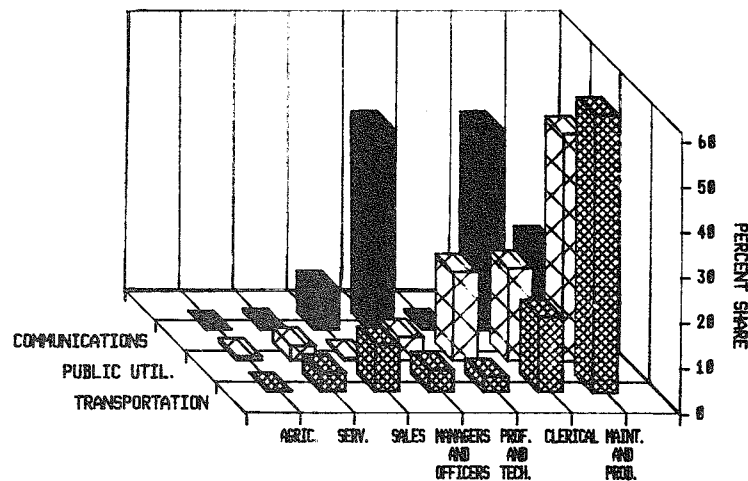
Yet to be exploited are the nonentertainment uses of cable systems, such as for two-way communications, data bank access, and alarm systems. Currently, in response to the public's demand for entertainment and sports programming, the industry is focusing on responding to the market's demand for these ancillary services.



# OCCUPATIONAL INFORMATION

Maintenance and production workers dominate employment in transportation, communications, and public utilities. This dominance reflects the numerous truck drivers in the transportation industry and mechanics, installers, and repairers, also prominent in the public utilities sector. The largest single occupation in TCPU is, in fact, tractor trailer truck drivers with employment of 4,500. Other prevalent occupations in this group are bus drivers, delivery and route workers, mechanics, and electrical powerline installers and repairers.

## MAJOR OCCUPATIONAL CATEGORIES IN TCPU 1986



Clerical workers represent the second largest occupational group with employment of 15,000 in 1985. Especially concentrated in firms providing communication services, clerical workers are common to all industries, and, for this reason, employment of general office clerks trails only truck drivers, managers, and travel agents. Also numerically prominent in the communication industry are customer service representatives and central office operators (switchboard operators)--further contributing to the size of the clerical category.

Trailing clerical workers is employment of professionals with 12 percent of the industry's total. Most numerous in this category are electrical and electronic engineers, radio and television announcers, and emergency medical technicians.

The occupational distribution of Arizona's TCPU employment, as shown above is consistent with the state's two major metropolitan counties. However, with fewer regional offices and administrative complexes, the "balance of state" or nonmetropolitan counties employ a significant number of maintenance and production workers and fewer clerical personnel.

Employment in each of the seven major occupational classes will continue to expand--although at different rates. Professional and technical

occupations will increase their share of total industry employment, while clerical and production workers will likely lose. Although its share is decreasing, production and maintenance occupations will continue to provide nearly half of the industry's employment. As in other industries, however, employment increases created by a growing demand for services are being tempered by development of more efficient equipment and procedures. These dynamics are particularly evident in maintenance and production occupations, where technological innovation is bringing greater productivity.

OCCUPATIONS WITH THE GREATEST EMPLOYMENT IN  
TRANSPORTATION, COMMUNICATIONS, AND PUBLIC UTILITIES

	Employment <u>May 1985</u>	Job Openings* <u>1985-1989</u>
Truck Drivers, Heavy or Tractor Trailer	4,463	1,068
Truck Drivers, Light-Inc. Delivery and Route	2,119	503
Transportation, Communications, and Utilities Operations Mgrs.	1,767	228
Travel Agents	1,680	532
General Office Clerks	1,282	345
Customer Service Representatives, Utilities	1,233	326
Electrical Powerline Installers and Repairers	1,189	184
Bookkeeping, Accounting, and Auditing Clerks	1,117	291
Bus Drivers	1,059	311
First Line Mgrs./Supvs. - Mechanics/ Installers/Repairers	1,042	188
Central Office/PBX Installers/Repairers	980	137
Secretaries	974	257
Sales Agents, Selected Business Services	936	224
Reservation and Transportation Ticket Agents	926	284
Telephone/Cable TV Line Installers/Repairers	839	101
General Managers and Top Executives	809	141
Stock Clerks - Stockroom, Warehouse, or Yard	787	144
First Line Supvs. and Mgr./Supvs. - Clerical	784	148
Transportation Agents, Material Distribution	781	251
Dispatchers - Ex. Police, Fire, and Ambulance	764	137
Mechanic and Repairer Helpers	732	117
Bus and Truck Mechanics and Diesel Engine Specialists	690	145
Electrical and Electronic Engineers	687	69
Announcers, Radio and Television	662	101
Central Office Operators	636	217
Adjustment Clerks	636	172
Railroad Brake, Signal, and Switch Operators	615	185
Machinery Maintenance Mechanics, Water and Power Generation Plants	602	105
Emergency Medical Technicians	551	207
Aircraft Mechanics	497	95
Maintenance Repairers, General Utility	497	71

\* Does not include turnover.

The industry's largest occupational group, production and maintenance workers, will total nearly 32,000 in 1989--up from 28,000 in 1985. Job opportunities resulting from this growth and the separation of workers from the labor force will total nearly 6,000 during this period. Demand for truck drivers, alone, will create 1,600 of these openings--by far the strongest demand for any occupation in the industry. Heavy or tractor-trailer drivers outnumber light-duty drivers two-to-one and will also account for about twice as many job openings. It is expected, however, that drivers who haul locally will see their numbers increase more rapidly than long-distance haulers as trucks carry virtually all local freight.

The second largest production and maintenance occupation, electrical powerline installers and repairers, will account for 1,300 workers in 1989. Despite the demand for telephone services and electricity, employment levels will not likely mirror growth in demand for electricity because of technological advances. Demand for line workers, for example, will be suppressed by the use of microwave, fiber optics, and other technologies that require less maintenance. Employment of telephone line installers and repairers, likewise, is affected by the increasing construction of pre-wired buildings, and the modular assembly of telephones.

Clerical occupations account for one of every four employees in TCPU. These occupations are especially prevalent in the communications industry, where, led by customer service representatives and central office operators, they account for nearly half of all employment. Central office operators, however, will see their share of the industry's total employment continue to shrink rapidly. Nationally, employment of central office operators continues to decline--a trend which began more than 25 years ago. In Arizona, increased service demand will somewhat offset reduced labor requirements brought about by such technological innovations as computer-assembled speech.

Openings for clerical occupations will, nonetheless, be a source of a substantial number of job opportunities. Turnover is relatively high in these occupations and many openings will result as employees leave one position to take another.

Representing the largest professional occupation and underlying the increasing share of professional and technical workers in Arizona's TCPU industry is the number of workers with engineering skills. Contributing to this evolution is the introduction of nuclear power generation in Arizona. According to the Bureau of Labor Statistics, nearly half of the nation's nuclear industry work force are engineers, scientists, and technicians.

Other activities in electric power generation that require engineering skills include research and development; system planning; design, construction, and installation; system operation and maintenance; and test engineering.

In the communications industry, engineers plan cable and microwave routes, central office and PBX equipment installations, and communication systems for new buildings, as well as engage in the development of new equipment.

## OCCUPATIONAL STRUCTURE

The following tables provide employment estimates and projected employment and job openings for the counties and the state. Graham and Greenlee counties have been combined to avoid disclosure of information about a single firm and because of their close proximity, similar economies, and size.

When using the data, please note the following:

1. Industry employment growth in each of the nonmetropolitan counties reflects the rate calculated for the "balance of state" (Arizona less Maricopa and Pima counties).
2. The data reflect full- and part-time wage and salary employment only, and do not include self-employed or unpaid family workers.
3. Total job openings represent the number of openings due to growth of the industry and separation from the labor force. They do not account for labor turnover, i.e., openings created when a worker changes jobs, leaving the job to be filled by someone else. These vacancies are generally the largest source of job openings.
4. To eliminate the possible disclosure of confidential employer information, occupations have been added to the appropriate "All Other" or residual category if less than three firms reported a single occupation; one firm reported more than 50 percent of the occupational estimate, or two firms combined reported more than 75 percent of the occupational estimate. In certain cases, releases have been obtained from large employers to waive the confidentiality criteria.
5. The projection technique does not possess the degree of accuracy that may be implied by unrounded numbers.
6. Data for occupations with employment of less than five are included in the appropriate "All Other" categories. These occupations are not listed, however, in the summary of "All Other" categories which follows each table.

ESTIMATED EMPLOYMENT AND JOB OPENINGS  
TRANSPORTATION, COMMUNICATION, AND PUBLIC UTILITIES  
ARIZONA

	ESTIMATED MAY 1985 EMPLOYMENT	PERCENT OF MAY 1985 EMPLOYMENT	PROJECTED MAY 1989 EMPLOYMENT	TOTAL JOB OPENINGS 1985-1989
MANAGERIAL & ADMINISTRATIVE OCCUPATIONS	3,693	6.2	3,964	491
Financial Managers	224	.4	232	21
Personnel, Training, & Labor Relations Mgrs.	86	.1	88	6
Purchasing Managers	44	.1	44	1
Marketing, Advertising, & Public Rel. Mgrs.	233	.4	243	28
Administrative Services Managers	138	.2	141	13
Engineering, Mathematical, & Natural Sciences Mgrs.	160	.3	167	21
Transportation, Communications, & Utilities Operations Managers	1,767	2.9	1,920	228
General Managers & Top Executives	809	1.3	883	141
All Other Managers & Administrators	232	.4	246	32
PROFESSIONAL, PARAPROFESSIONAL, & TECHNICAL	6,944	11.6	7,385	965
Management Support Occupations	1,102	1.8	1,158	158
Accountants & Auditors	292	.5	307	43
Budget Analysts	68	.1	70	9
All Other Financial Specialists	68	.1	70	6
Purchasing Agents, Exc. Wholesale, Retail, & Farm	117	.2	121	13
Personnel, Training, & Labor Rel. Specialists	158	.3	164	15
All Other Management Support Workers	399	.7	426	72
Engineers & Related Occupations	2,424	4.0	2,560	249
Engineers	10	.0	11	1
Chemical Engineers	35	.1	35	1
Nuclear Engineers	27	.0	28	2
Civil Engineers, Incl. Traffic	121	.2	128	18
Electrical & Electronic Engineers	687	1.1	726	69
Industrial Engineers, Exc. Safety	67	.1	69	6
Safety Engineers, Exc. Mining	27	.0	27	0
Mechanical Engineers	172	.3	182	18
All Other Engineers	60	.1	64	6
Surveying & Mapping Scientists	26	.0	26	0
Engineering & Related Technicians & Technologists	5	.0	5	0
Civil Engineering Technicians & Technologists	66	.1	68	7
Electrical/Electronic Engineering Technicians	424	.7	452	44
Mechanical Engineering Techs.	91	.2	97	7
Drafters	191	.3	203	22
Estimators & Drafters, Utilities	153	.3	160	16
Surveying & Mapping Techs.	87	.1	91	7
All Other Engineering & Related Technicians	175	.3	188	25
Natural Scientists & Related Workers	141	.2	147	11
Geologists, Geophysicists, & Oceanographers	41	.1	42	2
All Other Physical Scientists	38	.1	42	5
Life Scientists	44	.1	45	4
Physical & Life Science Technicians & Technologists	18	.0	18	0
Computer, Math, Research, & Related Occupations	560	.9	585	51
Systems Analysts, Electronic Data Processing	221	.4	231	15
Computer Programmers	139	.2	145	10
Computer Programmer Aides	139	.2	146	17
Mathematical Scientists	54	.1	56	9
All Other Mathematical Scientists	7	.0	7	0
Social Scientists & Religious Occupations	30	.1	31	2
Social Scientists, Incl. Urban & Regional Planners	30	.1	31	2
Law & Related Occupations	23	.0	23	1
Lawyers	23	.0	23	1
Teachers, Educators, Librarians, & Related Occupations	85	.1	92	16
Teachers & Instructors, Voc. Ed. & Training	45	.1	51	13
Farm & Home Management Advisors	40	.1	41	3

ESTIMATED EMPLOYMENT AND JOB OPENINGS  
TRANSPORTATION, COMMUNICATION, AND PUBLIC UTILITIES  
ARIZONA (CONTD.)

	ESTIMATED MAY 1985 EMPLOYMENT	PERCENT OF MAY 1985 EMPLOYMENT	PROJECTED MAY 1989 EMPLOYMENT	TOTAL JOB OPENINGS 1985-1989
Health Practitioners, Technicians, & Related	586	1.0	673	214
Emergency Medical Technicians	551	.9	637	207
All Other Health Professionals, Paraprofessionals, & Technicians	35	.1	36	7
Writers, Artists, Athletes, & Related	1,633	2.7	1,734	222
Writers & Editors	53	.1	53	6
Public Rel. Specialists & Publicity Writers	103	.2	105	12
Reporters & Correspondents	148	.2	156	33
Broadcast News Analysts	100	.2	105	9
Announcers, Radio & Television	662	1.1	723	101
Photographers	71	.1	74	9
Camera Operators, Television & Motion Picture	65	.1	67	5
Broadcast Technicians	293	.5	309	29
Film Editors	37	.1	38	7
Artists & Related Workers	22	.0	22	1
Producers, Directors, Actors, & Entertainers	79	.1	82	10
Other Professional, Paraprofessional, & Technical	360	.6	382	41
Radio Operators	7	.0	7	0
All Other Professional, Paraprofessional, & Technical Workers	353	.6	375	41
SALES & RELATED OCCUPATIONS	4,282	7.1	4,816	1,120
First Line Supervisors & Manager/Supervisors	336	.6	366	64
Sales Occupations, Services	3,048	5.1	3,458	834
Sales Agents, Selected Business Services	936	1.6	1,027	224
Travel Agents	1,680	2.8	1,972	532
Sales Agents, Advertising	432	.7	459	78
Sales Occupations, Merchandise & Related	898	1.5	992	222
Cashiers	187	.3	199	38
All Other Sales & Related Workers	711	1.2	793	184
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	14,920	24.9	16,302	3,614
First Line Supervisors & Manager/Supervisors	784	1.3	851	148
Industry Specific Clerical & Administrative Support	1,684	2.8	1,897	471
Credit Authorizers	12	.0	12	2
Credit Managers	11	.0	11	1
Adjustment Clerks	636	1.1	682	172
Bill & Account Collectors	88	.1	91	10
Travel Clerks	11	.0	11	2
Reservation & Transportation Ticket Agents	926	1.5	1,090	284
Selected Secretarial & General Office Occupations	6,370	10.6	6,891	1,670
Secretaries	974	1.6	1,049	257
Stenographers	66	.1	68	14
Receptionists & Information Clerks	310	.5	352	95
Typists	271	.5	288	79
Typists, Word Processing Equipment	85	.1	88	11
Personnel Clerks, Exc. Payroll & Timekeeping	106	.2	110	25
Correspondence Clerks	18	.0	18	2
File Clerks	33	.1	34	5
Order Clerks - Materials, Merch., & Service	206	.3	226	59
Statistical Clerks	237	.4	250	62
Customer Service Representatives, Utilities	1,233	2.1	1,314	326

ESTIMATED EMPLOYMENT AND JOB OPENINGS  
TRANSPORTATION, COMMUNICATION, AND PUBLIC UTILITIES  
ARIZONA (CONTD.)

	ESTIMATED MAY 1985 EMPLOYMENT	PERCENT OF MAY 1985 EMPLOYMENT	PROJECTED MAY 1989 EMPLOYMENT	TOTAL JOB OPENINGS 1985-1989
Bookkeeping, Accounting, & Auditing Clerks	1,117	1.9	1,231	291
Payroll & Timekeeping Clerks	99	.2	103	13
Billing, Cost & Rate Clerks	333	.6	366	86
General Office Clerks	1,282	2.1	1,394	345
Electronic Data Processing & Other Office Machine Occupations	677	1.1	714	96
Billing, Posting, & Calculating Machine Opers.	80	.1	82	6
Computer Operators, Exc. Peripheral Equipment	125	.2	131	12
Peripheral EDP Equipment Operators	151	.3	160	41
Data Entry Keyers, Exc. Composing	301	.5	321	34
All Other Office Machine Operators	20	.0	20	3
Communications, Mail, & Message Distribution	1,284	2.1	1,382	406
Switchboard Operators	244	.4	267	76
Directory Assistance Operators	337	.6	355	103
Central Office Operators	636	1.1	689	217
All Other Communication Equipment Operators	36	.1	39	8
Mail Clerks, Exc. Mail Machine Operators & Postal Service	14	.0	14	1
Messengers	17	.0	18	1
Material Distribution & Recording Occupations	3,904	6.5	4,332	802
Dispatchers - Police, Fire, & Ambulance	61	.1	70	14
Dispatchers - Exc. Police, Fire, & Ambulance	764	1.3	853	137
Production, Planning, & Expediting Clerks	232	.4	247	58
Transportation Agents	781	1.3	929	251
Meter Readers, Utilities	396	.7	417	39
Stock Clerks - Stockroom, Warehouse, or Yard	787	1.3	861	144
Traffic, Shipping, & Receiving Clerks	352	.6	391	67
All Other Material Recording/Scheduling/Dist.	531	.9	564	92
All Other Clerical & Administrative Support	217	.4	235	21
SERVICE OCCUPATIONS	1,731	2.9	1,928	449
First Line Supers. & Mgrs./Supers. - Service	63	.1	67	11
Protective Service Occupations	283	.5	298	25
Detectives & Investigators, Exc. Public	12	.0	12	0
Railroad & Transit Police & Special Agents	33	.1	37	4
Guards & Watch Guards	238	.4	249	21
Food & Beverage Service Occupations	35	.1	37	7
Health Service & Related Occupations	82	.1	93	20
Ambulance Drivers & Attendants - Exc. Emergency Medical Technicians	82	.1	93	20
Cleaning & Building Service Occupations, Exc. Private Households	484	.8	519	102
Selected Personal Service Occupations	728	1.2	857	277
Guides	144	.2	166	50
Baggage Porters & Bellhops	219	.4	259	54
Flight Attendants	360	.6	427	172
Transportation Attendants, Exc. Flight & Baggage	5	.0	5	1
All Other Service Occupations	56	.2	57	7
AGRICULTURAL, FORESTRY, & RELATED OCCUPATIONS	143	.2	150	22



ESTIMATED EMPLOYMENT AND JOB OPENINGS  
TRANSPORTATION, COMMUNICATION, AND PUBLIC UTILITIES  
ARIZONA (CONTD.)

	ESTIMATED MAY 1985 EMPLOYMENT	PERCENT OF MAY 1985 EMPLOYMENT	PROJECTED MAY 1989 EMPLOYMENT	TOTAL JOB OPENINGS 1985-1989
PRODUCTION, MAINTENANCE, & MATERIAL HANDLING	28,242	47.1	31,731	5,780
First Line Supervisors & Manager/Supervisors- Maintenance/Production/Construction	1,971	3.3	2,152	421
First Line Managers/Supervisors - Mechanics/ Installers/Repairers	1,042	1.7	1,114	188
First Line Managers/Supervisors - Construction Trades & Extraction Workers	280	.5	307	48
First Line Mgrs./Supers. - Transport. Operatives	378	.6	433	118
First Line Mgrs./Supers. - Laborers & Helpers	110	.2	128	38
All Other First Line Managers/Supervisors - Maintenance/Production/Construction	161	.3	170	29
Inspectors & Related Occupations	179	.3	194	28
Precision Inspectors, Testers, & Graders	58	.1	60	5
Transportation Inspectors	34	.1	37	4
All Other Inspectors, Testers, & Related	87	.1	97	19
Mechanics, Installers, & Repairers	8,614	14.4	9,366	1,264
Machinery Maintenance Mechanics, Water & Power Generation Plants	602	1.0	663	105
All Other Machinery Maintenance Mechanics	223	.4	235	24
Machinery Maintenance Workers	141	.2	152	26
Maintenance Repairers, General Utility	497	.8	538	71
Automotive Mechanics	347	.6	378	46
Bus & Truck Mechs., & Diesel Eng. Specialists	690	1.2	787	145
Mobile Heavy Equip. Mechanics, Exc. Engines	35	.1	38	3
Rail Car Repairers	55	.1	64	17
Aircraft Mechanics	497	.8	569	95
Aircraft Engine Specialists	106	.2	120	16
Central Office & PBX Installers & Repairers	980	1.6	1,044	137
Frame Wriers, Central Office	144	.2	150	12
Telegraph & Teletype Installers & Maintainers	12	.0	12	0
Signal or Track Switch Maintainers	119	.2	141	33
Radio Mechanics	203	.3	213	20
All Other Communication Equipment Mechanics/ Installers/Repairers	46	.1	47	1
Telephone & Cable TV Line Installers/Repairers	839	1.4	901	101
Electric Motor, Transformer, & Rel. Repairers	25	.0	26	1
Electronics Repairers, Commercial & Ind. Equip.	254	.4	270	26
Powerhouse, Substation, & Relay Electricians	207	.3	223	24
Electrical Powerline Installers & Repairers	1,189	2.0	1,286	184
Station Installers & Repairers, Telephone	421	.7	452	49
Electrical Installers & Repairers, Transportation Equipment	117	.2	137	27
All Other Electrical Mechs./Installers/Repairers	236	.4	248	26
Heating, Air Conditioning, & Refrigeration Mechanics & Installers	29	.0	30	2
Precision Instrument Repairers	102	.2	109	14
Electric Meter Installers & Repairers	150	.3	157	12
Mechanical Control & Valve Installers & Repairers	79	.1	83	5
Gas Appliance Repairers	97	.2	103	14
Tire Repairers & Changers	42	.1	48	10
All Other Mechanics, Installers, & Repairers	130	.2	142	18
Construction Trades & Extractive Occupations, Exc. Material Moving	791	1.3	881	150
Carpenters	91	.2	100	17
Electricians	212	.4	231	35
Painters & Paperhangers - Construction & Maintenance	40	.1	42	3
Plumbers, Pipefitters, & Steamfitters	77	.1	86	12
Pipelayers	19	.0	20	2
Rail-Track Laying & Maintenance Equip. Ops.	199	.3	237	64
Insulation Workers	18	.0	18	0
All Other Construction Trades Workers	129	.2	141	17
Extraction & Related Workers - Incl. Blasters	6	.0	6	0

ESTIMATED EMPLOYMENT AND JOB OPENINGS  
TRANSPORTATION, COMMUNICATION, AND PUBLIC UTILITIES  
ARIZONA (CONTD.)

	ESTIMATED MAY 1985 EMPLOYMENT	PERCENT OF MAY 1985 EMPLOYMENT	PROJECTED MAY 1989 EMPLOYMENT	TOTAL JOB OPENINGS 1985-1989
Precision Production Occupations	162	.3	173	23
Machinists	144	.2	154	22
All Other Precision Workers	18	.0	19	1
Machine Setters, Operatives, & Tenders	82	.1	87	9
Boiler Operators & Tenders, Low Pressure	8	.0	8	0
Painters, Transportation Equipment	47	.1	51	7
All Machine Setters & Set-Up Operators	10	.0	10	1
All Other Machine Operators & Tenders	17	.0	18	1
Hand Working, Inc. Assemblers & Fabricators	403	.7	442	70
Welders & Cutters	365	.6	401	65
All Other Hand Workers	38	.1	41	5
Plant & System Occupations	1,136	1.9	1,237	199
Water & Liquid Waste Treatment System Oper.	88	.1	92	5
Gas Plant Operators	135	.2	153	29
Power Generating Plant Oper., Exc. Aux. Equip.	176	.3	194	36
Auxiliary Equipment Operators, Power	245	.4	276	61
Power Reactor Operators	70	.1	73	8
Power Distributors & Dispatchers	194	.3	204	23
Stationary Engineers	24	.0	25	3
All Other Plant & System Operators	204	.3	220	34
Transportation & Material Moving Machine & Vehicle Operators	10,674	17.8	12,428	2,675
Truck Drivers, Heavy or Tractor Trailer	4,463	7.4	5,209	1,068
Truck Drivers, Light - Incl. Delivery & Route	2,119	3.5	2,473	503
Bus Drivers	1,059	1.8	1,237	311
Bus Drivers, School	76	.1	88	21
Taxi Drivers & Chauffeurs	307	.5	352	85
Railroad Conductors & Yardmasters	290	.5	345	103
Locomotive Engineers	288	.5	343	119
Rail Yard Engineers, Dinkey Oper. & Hostlers	32	.1	37	11
Locomotive Firers	98	.2	117	26
Railroad Brake, Signal, & Switch Operators	615	1.0	733	185
All Other Rail Vehicle Oper. & Controllers	28	.0	31	5
Aircraft Pilots & Flight Engineers	422	.7	493	90
Service Station Attendants	77	.1	84	10
All Other Transportation & Related Workers	271	.5	312	69
Crane & Tower Operators	43	.1	45	4
Industrial Truck & Tractor Operators	273	.5	302	42
Operating Engineers	100	.2	106	11
All Other Transportation & Moving Equip. Operators	26	.0	28	2
All Other Material Moving Equipment Operators	87	.1	93	10
Helpers, Laborers, & Material Movers, Hand	4,230	7.0	4,771	941
Mechanic & Repairer Helpers	732	1.2	777	117
Helpers - Electricians & Powerline Installers	487	.8	533	94
Helpers - All Other Construction Trades	421	.7	471	94
Refuse Collectors	482	.8	570	114
Hand Packers & Packagers	232	.4	259	49
Vehicle Washers & Equipment Cleaners	134	.2	154	30
All Other Helpers & Laborers	1,742	2.9	2,007	443
TOTAL OF ALL OCCUPATIONS	59,955	100.0	66,276	12,441

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PRODUCTION, MAINTENANCE, & MATERIAL HANDLING

All Other Mechanics, Installers, & Repairers  
  Small Engine Specialists

All Other Rail Vehicle Oper. & Controllers  
  Subway & Streetcar Operators

All Other Construction Trades Workers  
  Pipelaying Fitters

ESTIMATED EMPLOYMENT AND JOB OPENINGS  
TRANSPORTATION, COMMUNICATION, AND PUBLIC UTILITIES  
APACHE COUNTY

	ESTIMATED MAY 1985 EMPLOYMENT	PROJECTED MAY 1989 EMPLOYMENT	JOB OPENINGS DUE TO GROWTH 1985-1989	JOB OPENINGS DUE TO SEPARATIONS 1985-1989	TOTAL JOB OPENINGS 1985-1989
MANAGERIAL & ADMINISTRATIVE OCCUPATIONS	63	65	2	0	2
Financial Managers	5	5	0	0	0
Personnel, Training, & Labor Relations Mgrs.	5	5	0	0	0
Transportation, Communications, & Utilities Operations Managers	20	22	2	0	2
General Managers & Top Executives	15	15	0	0	0
All Other Managers & Administrators	18	18	0	0	0
PROFESSIONAL, PARAPROFESSIONAL, & TECHNICAL	184	196	12	3	15
Accountants & Auditors	23	26	3	3	6
All Other Financial Specialists	7	7	0	0	0
Purchasing Agents, Exc. Wholesale, Retail, & Farm	7	7	0	0	0
Personnel, Training, & Labor Rel. Specialists	8	8	0	0	0
All Other Management Support Workers	6	6	0	0	0
Electrical & Electronic Engineers	10	11	1	0	1
Mechanical Engineers	7	8	1	0	1
All Other Engineers	10	10	0	0	0
Civil Engineering Technicians & Technologists	6	6	0	0	0
Electrical/Electronic Engineering Technicians	9	10	1	0	1
Mechanical Engineering Techs.	15	17	2	0	2
Drafters	10	11	1	0	1
Surveying & Mapping Technicians	7	8	1	0	1
All Other Engineering & Related Technicians	11	12	1	0	1
All Physical Scientists	8	8	0	0	0
All Life Scientists	3	3	0	0	0
Physical & Life Science Technicians & Technologists	6	6	0	0	0
All Health Diagnosing & Treating Practitioners	1	1	0	0	0
All Other Professional, Paraprofessional, & Technical Workers	30	31	1	0	1
SALES & RELATED OCCUPATIONS	16	17	1	2	3
All Sales Representatives & Salespersons, Service	8	9	1	1	2
Cashiers	5	5	0	1	1
All Other Sales & Related Workers	3	3	0	0	0
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	235	258	23	26	49
First Line Supers.-Clerical & Admin. Support	11	12	1	1	2
Secretaries	21	23	2	3	5
Receptionists & Information Clerks	8	8	0	0	0
Bookkeeping, Accounting, & Auditing Clerks	7	7	0	0	0
Billing, Cost & Rate Clerks	10	11	1	2	3
General Office Clerks	34	39	5	5	10
All Office Machine Operators	4	4	0	0	0
All Communication Equipment Operators	45	52	7	12	19
Meter Readers, Utilities	16	18	2	1	3
Stock Clerks - Stockroom, Warehouse, or Yard	20	23	3	1	4
Traffic, Shipping, & Receiving Clerks	10	10	0	0	0
All Other Material Recording/Scheduling/Dist.	23	25	2	0	2
All Other Clerical & Administrative Support	26	26	0	1	1
SERVICE OCCUPATIONS	29	30	1	2	3
All Service Supervisors & Managers	3	3	0	0	0
Guards & Watch Guards	6	6	0	0	0
Cleaning and Building Service Occupations	19	20	1	2	3
All Other Service Workers	1	1	0	0	0

ESTIMATED EMPLOYMENT AND JOB OPENINGS  
TRANSPORTATION, COMMUNICATION, AND PUBLIC UTILITIES  
APACHE COUNTY (CONTD.)

	ESTIMATED MAY 1985 EMPLOYMENT	PROJECTED MAY 1989 EMPLOYMENT	JOB OPENINGS DUE TO GROWTH 1985-1989	JOB OPENINGS DUE TO SEPARATIONS 1985-1989	TOTAL JOB OPENINGS 1985-1989
PRODUCTION, MAINTENANCE, & MATERIAL HANDLING	1,057	1,207	150	77	227
First Line Managers/Supervisors - Mechanics/ Installers/Repairers	38	42	4	3	7
First Line Managers/Supervisors - Construction Trades & Extraction Workers	33	38	5	2	7
All Other First Line Managers/Supervisors - Maintenance/Production/Construction	11	12	1	1	2
All Other Inspectors, Testers, & Related	4	4	0	0	0
Machinery Maintenance Mechanics, Water & Power Generation Plants	81	94	13	6	19
Maintenance Repairers, General Utility	60	69	9	4	13
Automotive Mechanics	21	24	3	1	4
Bus & Truck Mechs., & Diesel Eng. Specialists	30	33	3	2	5
All Communication Equipment Mechanics/ Installers/Repairers	30	35	5	2	7
Powerhouse, Substation, & Relay Electricians	12	14	2	0	2
Electrical Powerline Installers & Repairers	43	50	7	3	10
All Other Electrical Mechs./Installers/Repairers	29	32	3	0	3
Precision Instrument Repairers	22	25	3	1	4
Electric Meter Installers & Repairers	6	7	1	0	1
All Other Mechanics, Installers, & Repairers	5	5	0	0	0
Electricians	36	41	5	3	8
Painters & Paperhangers - Construction & Maintenance	9	9	0	0	0
Plumbers, Pipefitters, & Steamfitters	6	7	1	0	1
All Other Construction Trades Workers	41	47	6	2	8
Machinists	12	13	1	1	2
Welders & Cutters	73	85	12	6	18
Water & Liquid Waste Treatment System Oper.	9	10	1	0	1
Gas Plant Operators	52	60	8	5	13
Power Generating Plant Oper., Exc. Aux. Equip.	30	35	5	3	8
Auxiliary Equipment Operators, Power	76	89	13	10	23
All Other Plant & System Operators	7	8	1	0	1
Truck Drivers, Heavy or Tractor Trailer	86	95	9	5	14
All Other Motor Vehicle Operators	4	4	0	0	0
Operating Engineers	9	10	1	0	1
All Other Material Moving Equipment Operators	2	2	0	0	0
Mechanic & Repairer Helpers	47	54	7	5	12
Helpers - Electricians & Powerline Installers	21	24	3	1	4
Helpers - All Other Construction Trades	77	90	13	8	21
All Other Helpers & Laborers	35	40	5	3	8
TOTAL OF ALL OCCUPATIONS	1,584	1,773	189	110	299

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

SALES & RELATED OCCUPATIONS

All Other Sales Representatives &  
Salespersons, Service  
Sales Agents, Selected Business Services

CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS

All Communication Equipment Operators  
Central Office Operators

All Other Material Recording/Scheduling/Dist.  
Dispatchers - Exc. Police, Fire, & Ambulance

All Other Clerical & Administrative Support  
Adjustment Clerks

PRODUCTION, MAINTENANCE, & MATERIAL HANDLING

All Communication Equipment Mechanics/  
Installers/Repairers  
Central Office & PBX Installers & Repairers

All Other Electrical Mechs./Installers/Repairers  
Telephone & Cable TV Line Installers/Repairers  
Station Installers & Repairers, Telephone

All Other Plant & System Operators  
Stationary Engineers

ESTIMATED EMPLOYMENT AND JOB OPENINGS  
TRANSPORTATION, COMMUNICATION, AND PUBLIC UTILITIES

COCHISE COUNTY

	ESTIMATED MAY 1985 EMPLOYMENT	PROJECTED MAY 1989 EMPLOYMENT	JOB OPENINGS DUE TO GROWTH 1985-1989	JOB OPENINGS DUE TO SEPARATIONS 1985-1989	TOTAL JOB OPENINGS 1985-1989
MANAGERIAL & ADMINISTRATIVE OCCUPATIONS	91	97	6	3	9
Financial Managers	5	5	0	0	0
Marketing, Advertising, & Public Rel. Mgrs.	11	12	1	1	2
Engineering, Mathematical & Natural Sciences Managers	13	15	2	1	3
Transportation, Communications, & Utilities Operations Managers	41	43	2	0	2
General Managers & Top Executives	16	17	1	1	2
All Other Managers & Administrators	5	5	0	0	0
PROFESSIONAL, PARAPROFESSIONAL, & TECHNICAL	353	396	43	14	57
Accountants & Auditors	11	11	0	0	0
All Other Management Support Workers	10	10	0	0	0
Electrical & Electronic Engineers	55	63	8	2	10
All Other Engineers	12	13	1	0	1
Electrical/Electronic Engineering Technicians	65	75	10	2	12
Drafters	38	44	6	2	8
All Other Engineering & Related Technicians	65	74	9	6	15
All Physical Scientists	1	1	0	0	0
All Life Scientists	2	2	0	0	0
Systems Analysts, Electronic Data Processing	17	19	2	0	2
Computer Programmers	11	12	1	0	1
All Health Professionals, Paraprofessionals, & Technicians	2	2	0	0	0
Announcers, Radio & Television	31	36	5	2	7
All Other Professional, Paraprofessional, & Technical Workers	33	34	1	0	1
SALES & RELATED OCCUPATIONS	22	23	1	1	2
Sales Agents, Selected Business Services	8	8	0	0	0
All Other Sales Representatives & Salespersons, Service	11	12	1	1	2
All Other Sales & Related Workers	3	3	0	0	0
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	307	328	21	28	49
First Line Supers.-Clerical & Admin. Support	12	13	1	0	1
Secretaries	24	25	1	3	4
Typists	22	25	3	5	8
Customer Service Representatives, Utilities	39	44	5	7	12
Bookkeeping, Accounting, & Auditing Clerks	19	20	1	2	3
Billing, Cost & Rate Clerks	27	29	2	4	6
General Office Clerks	37	39	2	4	6
Computer Operators, Exc. Peripheral Equipment	24	27	3	2	5
All Other Office Machine Operators	6	6	0	0	0
All Communication Equipment Operators	8	8	0	1	1
Dispatchers - Exc. Police, Fire, & Ambulance	24	25	1	0	1
Meter Readers, Utilities	14	15	1	0	1
Stock Clerks - Stockroom, Warehouse, or Yard	32	33	1	0	1
All Other Material Recording/Scheduling/Dist.	5	5	0	0	0
All Other Clerical & Administrative Support	14	14	0	0	0
SERVICE OCCUPATIONS	11	11	0	0	0
All Service Supervisors & Managers	1	1	0	0	0
All Protective Service Workers	4	4	0	0	0
Cleaning & Building Service Occupations, Exc. Private House	6	6	0	0	0
PRODUCTION, MAINTENANCE, & MATERIAL HANDLING	728	808	83	44	127
First Line Managers/Supervisors - Mechanics/ Installers/Repairers	22	24	2	1	3
First Line Mgrs./Supers. - Transport. Operatives	8	8	0	0	0
All Other First Line Managers/Supervisors - Maintenance/Production/Construction	13	14	1	2	3

ESTIMATED EMPLOYMENT AND JOB OPENINGS  
TRANSPORTATION, COMMUNICATION, AND PUBLIC UTILITIES

COCHISE COUNTY (CONTD.)

	ESTIMATED MAY 1985 EMPLOYMENT	PROJECTED MAY 1989 EMPLOYMENT	JOB OPENINGS DUE TO GROWTH 1985-1989	JOB OPENINGS DUE TO SEPARATIONS 1985-1989	TOTAL JOB OPENINGS 1985-1989
All Other Inspectors, Testers, & Related Maintenance Repairers, General Utility	6 5	6 5	0 0	0 0	0 0
Automotive Mechanics	6	6	0	0	0
Bus & Truck Mechs., & Diesel Eng. Specialists	10	11	1	0	1
Mobile Heavy Equip. Mechanics, Exc. Engines	7	8	1	0	1
All Communication Equipment Mechanics/ Installers/Repairers	11	12	1	0	1
Telephone & Cable TV Line Installers/Repairers	38	44	6	1	7
Electric Motor, Transformer, & Rel. Repairers	10	11	1	0	1
Electrical Powerline Installers & Repairers	83	96	13	6	19
All Other Electrical Mechs./Installers/Repairers	64	73	9	1	10
All Other Mechanics, Installers, & Repairers	68	75	7	3	10
Electricians	12	13	1	1	2
All Other Construction Trades Workers	1	1	0	0	0
All Precision Metal Workers	4	4	0	0	0
All Machine Operators & Tenders	2	2	0	0	0
All Hand Workers	4	4	0	0	0
Gas Plant Operators	21	21	3	2	5
Power Generating Plant Opers., Exc. Aux. Equip.	12	14	2	1	3
Auxiliary Equipment Operators, Power	25	29	4	3	7
Power Distributors & Dispatchers	16	18	2	1	3
All Other Plant & System Operators	4	4	0	0	0
Truck Drivers, Heavy or Tractor Trailer	61	67	6	4	10
Truck Drivers, Light - Incl. Delivery & Route	34	37	3	2	5
All Other Motor Vehicle Operators	17	18	1	1	2
All Transportation & Related Workers	5	5	0	0	0
Operating Engineers	8	9	1	0	1
All Other Transportation & Moving Equip. Operators	2	2	0	0	0
Helpers - Electricians & Powerline Installers	53	61	8	5	13
Hand Packers & Packagers	65	72	7	7	14
All Other Helpers & Laborers	31	34	3	3	6
TOTAL OF ALL OCCUPATIONS	1,512	1,663	154	90	244

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL, PARAPROFESSIONAL, & TECHNICAL

All Other Professional, Paraprofessional,  
& Technical Workers  
Broadcast Technicians

SALES & RELATED OCCUPATIONS

All Sales Representatives & Salespersons, Service  
Travel Agents

PRODUCTION, MAINTENANCE, & MATERIAL HANDLING

All Other Communication Equipment Mechanics/  
Installers/Repairers  
Central Office & PBX Installers & Repairers

All Other Electrical Mechs./Installers/Repairers  
Electronics Repairers, Commercial & Ind. Equip.  
Powerhouse, Substation, & Relay Electricians  
Station Installers & Repairers, Telephone  
Electrical Installers & Repairers,  
Transportation Equipment

All Other Mechanics, Installers, & Repairers  
Machinery Maintenance Mechanics, Water & Power  
Generation Plants  
Aircraft Mechanics

All Other Motor Vehicle Operators  
Bus Drivers

ESTIMATED EMPLOYMENT AND JOB OPENINGS  
TRANSPORTATION, COMMUNICATION, AND PUBLIC UTILITIES  
COCONINO COUNTY

	ESTIMATED MAY 1985 EMPLOYMENT	PROJECTED MAY 1989 EMPLOYMENT	JOB OPENINGS DUE TO GROWTH 1985-1989	JOB OPENINGS DUE TO SEPARATIONS 1985-1989	TOTAL JOB OPENINGS 1985-1989
MANAGERIAL & ADMINISTRATIVE OCCUPATIONS	90	93	3	0	3
Marketing, Advertising, & Public Rel. Mgrs.	5	5	0	0	0
Transportation, Communications, & Utilities Operations Managers	41	43	2	0	2
General Managers & Top Executives	27	28	1	0	1
All Other Managers & Administrators	17	17	0	0	0
PROFESSIONAL, PARAPROFESSIONAL, & TECHNICAL	248	272	24	12	36
Accountants & Auditors	37	40	3	5	8
All Other Financial Specialists	2	2	0	0	0
Purchasing Agents, Exc. Wholesale, Retail, & Farm	8	9	1	1	2
All Other Management Support Workers	5	5	0	0	0
Electrical & Electronic Engineers	18	19	1	0	1
All Other Engineers	12	12	0	0	0
Electrical/Electronic Engineering Technicians	7	8	1	0	1
Mechanical Engineering Techs.	19	22	3	0	3
All Other Engineering & Related Technicians	20	21	1	0	1
All Physical Scientists	28	32	4	1	5
All Physical & Life Science Techs.	2	2	0	0	0
All Social Scientists	1	1	0	0	0
All Health Professionals, Paraprofessionals, & Technicians	15	16	1	3	4
Announcers, Radio & Television	41	48	7	2	9
All Other Professional, Paraprofessional, & Technical Workers	33	35	2	0	2
SALES & RELATED OCCUPATIONS	77	81	4	6	10
First Line Supervisors & Managers - Sales	6	6	0	0	0
Sales Agents, Selected Business Services	16	16	0	0	0
Sales Agents, Advertising	11	12	1	1	2
All Other Sales Representatives & Salespersons, Service	21	23	2	3	5
All Other Sales & Related Workers	23	24	1	2	3
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	322	345	23	28	51
First Line Supers.-Clerical & Admin. Support	17	17	0	0	0
Reservation & Transportation Ticket Agents	56	61	5	7	12
Secretaries	21	21	0	1	1
Personnel Clerks, Exc. Payroll & Timekeeping	7	8	1	1	2
File Clerks	9	9	0	2	2
Customer Service Representatives, Utilities	21	24	3	3	6
Bookkeeping, Accounting, & Auditing Clerks	25	25	0	0	0
General Office Clerks	41	44	3	5	8
All Office Machine Operators	3	3	0	0	0
Central Office Operators	18	21	3	4	7
All Other Communication Equipment Operators	4	4	0	0	0
Dispatchers - Exc. Police, Fire, & Ambulance	6	6	0	0	0
Meter Readers, Utilities	9	10	1	0	1
Stock Clerks - Stockroom, Warehouse, or Yard	32	36	4	3	7
All Other Material Recording/Scheduling/Dist.	15	16	1	1	2
All Other Clerical & Administrative Support	38	40	2	1	3
SERVICE OCCUPATIONS	61	67	6	9	15
First Line Supers. & Mgrs./Supers. - Service	1	1	0	0	0
Cleaning & Building Service Occupations	23	26	3	3	6
Guides	34	37	3	6	9
All Other Service Workers	3	3	0	0	0
PRODUCTION, MAINTENANCE, & MATERIAL HANDLING	1,430	1,623	193	101	294
First Line Managers/Supervisors - Mechanics/ Installers/Repairers	38	43	5	3	8
First Line Managers/Supervisors - Construction Trades & Extraction Workers	46	54	8	4	12
First Line Mgrs./Supers. - Transport. Operatives	17	18	1	1	2

ESTIMATED EMPLOYMENT AND JOB OPENINGS  
TRANSPORTATION, COMMUNICATION, AND PUBLIC UTILITIES  
COCONINO COUNTY (CONTD.)

	ESTIMATED MAY 1985 EMPLOYMENT	PROJECTED MAY 1989 EMPLOYMENT	JOB OPENINGS DUE TO GROWTH 1985-1989	JOB OPENINGS DUE TO SEPARATIONS 1985-1989	TOTAL JOB OPENINGS 1985-1989
All Other First Line Managers/Supervisors -					
Maintenance/Production/Construction	3	3	0	0	0
Precision Inspectors, Testers, & Graders	7	8	1	0	1
Machinery Maintenance Mechanics, Water & Power					
Generation Plants	129	150	21	10	31
Machinery Maintenance Workers	36	42	6	4	10
Bus & Truck Mechs., & Diesel Eng. Specialists	19	20	1	1	2
Central Office & PBX Installers & Repairers	9	10	1	0	1
All Other Communication Equipment Mechanics/ Installers/Repairers	6	6	0	0	0
Telephone & Cable TV Line Installers/Repairers	34	39	5	1	6
Powerhouse, Substation, & Relay Electricians	8	9	1	0	1
Electrical Powerline Installers & Repairers	43	50	7	3	10
Station Installers & Repairers, Telephone	14	16	2	0	2
Precision Instrument Repairers	14	16	2	1	3
Gas Appliance Repairers	7	8	1	0	1
All Other Mechanics, Installers, & Repairers	129	146	17	5	22
Electricians	51	59	8	4	12
All Other Construction Trades Workers	19	21	2	0	2
All Other Construction & Extraction Workers, Exc. Helpers	1	1	0	0	0
Machinists	22	25	3	2	5
Welders & Cutters	60	70	10	5	15
All Other Hand Workers	12	13	1	0	1
Gas Plant Operators	46	53	7	4	11
Power Generating Plant Oper., Exc. Aux. Equip.	36	42	6	4	10
Auxiliary Equipment Operators, Power	53	62	9	7	16
All Other Plant & System Operators	15	16	1	1	2
Truck Drivers, Heavy or Tractor Trailer	191	212	21	13	34
All Other Motor Vehicle Operators	70	75	5	5	10
Aircraft Pilots & Flight Engineers	29	32	3	1	4
All Other Transportation & Related Workers	21	24	3	2	5
All Material Moving Equipment Operators	32	35	3	1	4
Mechanic & Repairer Helpers	14	16	2	0	2
Helpers - All Construction Trades	166	194	28	18	46
All Other Helpers & Laborers	33	35	2	1	3
<b>TOTAL OF ALL OCCUPATIONS</b>	<b>2,228</b>	<b>2,481</b>	<b>253</b>	<b>156</b>	<b>409</b>

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

MANAGERIAL & ADMINISTRATIVE OCCUPATIONS

All Other Managers & Administrators  
Financial Managers

PROFESSIONAL, PARAPROFESSIONAL, & TECHNICAL

All Other Engineering & Related Technicians  
Civil Engineering Technicians & Technologists

All Health Professionals,  
Paraprofessionals, & Technicians  
Emergency Medical Technicians

All Other Professional, Paraprofessional,  
& Technical Workers  
Broadcast Technicians

SALES & RELATED OCCUPATIONS

All Other Sales Representatives & Salespersons, Service  
Travel Agents

All Other Sales & Related Workers  
Cashiers

CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS

All Other Material Recording/Scheduling/Dist.  
Transportation Agents

All Other Clerical & Administrative Support  
Payroll & Timekeeping Clerks  
Billing, Cost & Rate Clerks



ESTIMATED EMPLOYMENT AND JOB OPENINGS  
TRANSPORTATION, COMMUNICATION, AND PUBLIC UTILITIES  
COCONINO COUNTY (CONTD.)

PRODUCTION, MAINTENANCE, & MATERIAL HANDLING

All Other Mechanics, Installers, & Repairers  
Maintenance Repairers, General Utility  
Automotive Mechanics  
Mobile Heavy Equip. Mechanics, Exc. Engines  
Aircraft Mechanics  
Aircraft Engine Specialists

All Other Construction Trades Workers  
Painters & Paperhangers - Construction &  
Maintenance  
Pipelayers

All Other Motor Vehicle Operators  
Truck Drivers, Light - Incl. Delivery & Route  
Bus Drivers  
Taxi Drivers & Chauffeurs

All Material Moving Equipment Operators  
Industrial Truck & Tractor Operators  
Operating Engineers

All Other Helpers & Laborers  
Vehicle Washers & Equipment Cleaners

ESTIMATED EMPLOYMENT AND JOB OPENINGS  
TRANSPORTATION, COMMUNICATION, AND PUBLIC UTILITIES  
GILA COUNTY

	ESTIMATED MAY 1985 EMPLOYMENT	PROJECTED MAY 1989 EMPLOYMENT	JOB OPENINGS DUE TO GROWTH 1985-1989	JOB OPENINGS DUE TO SEPARATIONS 1985-1989	TOTAL JOB OPENINGS 1985-1989
MANAGERIAL & ADMINISTRATIVE OCCUPATIONS	23	24	1	0	1
Transportation, Communications, & Utilities Operations Managers	12	13	1	0	1
General Managers & Top Executives	8	8	0	0	0
All Other Managers & Administrators	3	3	0	0	0
PROFESSIONAL, PARAPROFESSIONAL, & TECHNICAL	34	36	2	2	4
All Management Support Workers	5	5	0	0	0
All Engineers	1	1	0	0	0
All Engineering & Related Technicians	1	1	0	0	0
All Physical & Life Science Techs.	5	5	0	0	0
All Health Professionals, Paraprofessionals, & Technicians	12	13	1	2	3
All Other Professional, Paraprofessional, & Technical Workers	10	11	1	0	1
SALES & RELATED OCCUPATIONS	3	3	0	0	0
All Sales Representatives & Salespersons, Service	2	2	0	0	0
All Other Sales & Related Workers	1	1	0	0	0
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	58	59	1	3	4
First Line Supers.-Clerical & Admin. Support	4	4	0	0	0
Secretaries	2	2	0	0	0
Customer Service Representatives, Utilities	13	14	1	1	2
General Office Clerks	10	10	0	1	1
All Communication Equipment Operators	6	6	0	1	1
Meter Readers, Utilities	10	10	0	0	0
All Other Material Recording/Scheduling/Dist.	3	3	0	0	0
All Other Clerical & Administrative Support	10	10	0	0	0
PRODUCTION, MAINTENANCE, & MATERIAL HANDLING	161	171	10	5	15
All First Line Managers/Supervisors - Maintenance/Production/Construction	5	5	0	0	0
All Communication Equipment Mechanics/ Installers/Repairers	5	5	0	0	0
Electrical Powerline Installers & Repairers	26	29	3	1	4
All Other Electrical Mechs./Installers/Repairers	16	16	0	0	0
All Other Mechanics, Installers, & Repairers	17	17	0	0	0
All Plant & System Operators	8	9	1	0	1
Truck Drivers, Heavy or Tractor Trailer	61	67	6	4	10
All Other Motor Vehicle Operators	6	6	0	0	0
All Transportation & Related Workers	3	3	0	0	0
All Material Moving Equipment Operators	5	5	0	0	0
All Helpers & Laborers	9	9	0	0	0
TOTAL OF ALL OCCUPATIONS	279	293	14	10	24

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL, PARAPROFESSIONAL, & TECHNICAL

All Health Professionals,  
Paraprofessionals, & Technicians  
Emergency Medical Technicians

All Other Professional, Paraprofessional,  
& Technical Workers  
Announcers, Radio & Television

PRODUCTION, MAINTENANCE, & MATERIAL HANDLING

All Other Mechanics, Installers, & Repairers  
Bus & Truck Mechs., & Diesel Eng. Specialists

All Other Electrical Mechs./Installers/Repairers  
Telephone & Cable TV Line Installers/Repairers

All Other Plant & System Operators  
Water & Liquid Waste Treatment System Opers.

All Other Motor Vehicle Operators  
Truck Drivers, Light - Incl. Delivery & Route

ESTIMATED EMPLOYMENT AND JOB OPENINGS  
TRANSPORTATION, COMMUNICATION, AND PUBLIC UTILITIES  
GRAHAM AND GREENLEE COUNTIES

	ESTIMATED MAY 1985 EMPLOYMENT	PROJECTED MAY 1989 EMPLOYMENT	JOB OPENINGS DUE TO GROWTH 1985-1989	JOB OPENINGS DUE TO SEPARATIONS 1985-1989	TOTAL JOB OPENINGS 1985-1989
MANAGERIAL & ADMINISTRATIVE OCCUPATIONS	13	13	0	0	0
General Managers & Top Executives	9	9	0	0	0
All Other Managers & Administrators	4	4	0	0	0
PROFESSIONAL, PARAPROFESSIONAL, & TECHNICAL	21	24	3	1	4
All Management Support Workers	1	1	0	0	0
All Other Professional, Paraprofessional, & Technical Workers	20	23	3	1	4
SALES & RELATED OCCUPATIONS	4	4	0	0	0
All Sales Representatives & Salespersons, Service	2	2	0	0	0
All Other Sales & Related Workers	2	2	0	0	0
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	27	27	0	0	0
Bill & Account Collectors	5	5	0	0	0
Secretaries	2	2	0	0	0
All Office Machine Operators	3	3	0	0	0
All Communication Equipment Operators	3	3	0	0	0
All Material Recording/Scheduling/Dist.	4	4	0	0	0
All Other Clerical & Administrative Support	10	10	0	0	0
SERVICE OCCUPATIONS	3	3	0	0	0
All Cleaning/Building Service, Exc.					
Private House	3	3	0	0	0
PRODUCTION, MAINTENANCE, & MATERIAL HANDLING	100	106	6	2	8
All First Line Managers/Supervisors - Maintenance/Production/Construction	13	13	0	0	0
All Communication Equipment Mechanics/ Installers/Repairers	1	1	0	0	0
All Electrical Mechs./Installers/Repairers	8	8	0	0	0
All Mechanics, Installers, & Repairers	16	17	1	0	1
All Construction Trades Workers	13	14	1	0	1
All Hand Workers	1	1	0	0	0
Truck Drivers, Heavy or Tractor Trailer	29	32	3	1	4
All Other Motor Vehicle Operators	5	5	0	0	0
All Material Moving Equipment Operators	1	1	0	0	0
Mechanic & Repairer Helpers	11	12	1	1	2
All Other Helpers & Laborers	2	2	0	0	0
TOTAL OF ALL OCCUPATIONS	168	177	9	3	12

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL, PARAPROFESSIONAL, & TECHNICAL

All Other Professional, Paraprofessional,  
& Technical Workers  
Announcers, Radio & Television

PRODUCTION, MAINTENANCE, & MATERIAL HANDLING

All Construction Trades Workers  
Telephone & Cable TV Line Installers/Repairers

ESTIMATED EMPLOYMENT AND JOB OPENINGS  
TRANSPORTATION, COMMUNICATION, AND PUBLIC UTILITIES  
LA PAZ COUNTY

	ESTIMATED MAY 1985 EMPLOYMENT	PROJECTED MAY 1989 EMPLOYMENT	JOB OPENINGS DUE TO GROWTH 1985-1989	JOB OPENINGS DUE TO SEPARATIONS 1985-1989	TOTAL JOB OPENINGS 1985-1989
MANAGERIAL & ADMINISTRATIVE OCCUPATIONS	7	7	0	0	0
PROFESSIONAL, PARAPROFESSIONAL, & TECHNICAL	14	15	1	1	2
All Health Professionals, Paraprofessionals, & Technicians	6	6	0	1	1
All Other Professional, Paraprofessional, & Technical Workers	8	9	1	0	1
SALES & RELATED OCCUPATIONS	5	5	0	0	0
All Sales Representatives & Salespersons, Service	2	2	0	0	0
All Other Sales & Related Workers	3	3	0	0	0
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	12	12	0	0	0
Customer Service Representatives, Utilities	7	7	0	0	0
All Office Machine Operators	1	1	0	0	0
All Material Recording/Scheduling/Dist.	2	2	0	0	0
All Other Clerical & Administrative Support	2	2	0	0	0
SERVICE OCCUPATIONS	8	8	0	1	1
All Food Service Workers	8	8	0	1	1
PRODUCTION, MAINTENANCE, & MATERIAL HANDLING	37	40	3	0	3
All First Line Managers/Supervisors - Maintenance/Production/Construction	5	5	0	0	0
All Communication Equipment Mechanics/ Installers/Repairers	6	7	1	0	1
All Electrical Mechs./Installers/Repairers	24	26	2	0	2
All Other Mechanics, Installers, & Repairers	2	2	0	0	0
TOTAL OF ALL OCCUPATIONS	83	87	4	2	6

Confidential Data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL, PARAPROFESSIONAL, & TECHNICAL

All Other Professionals,  
Paraprofessionals, & Technicians  
Emergency Medical Technicians

All Other Professional, Paraprofessional,  
& Technical Workers  
Announcers, Radio & Television

SERVICE OCCUPATIONS

All Other Food Service Workers  
Food & Beverage Service Occupations

PRODUCTION, MAINTENANCE, & MATERIAL HANDLING

All Communication Equipment Mechanics/  
Installers/Repairers  
Central Office & PBX Installers & Repairers

All Electrical Mechs./Installers/Repairers  
Electrical Powerline Installers & Repairers  
Station Installers & Repairers, Telephone

ESTIMATED EMPLOYMENT AND JOB OPENINGS  
TRANSPORTATION, COMMUNICATION, AND PUBLIC UTILITIES

MARICOPA COUNTY

	ESTIMATED MAY 1985 EMPLOYMENT	PROJECTED MAY 1989 EMPLOYMENT	JOB OPENINGS DUE TO GROWTH 1985-1989	JOB OPENINGS DUE TO SEPARATIONS 1985-1989	TOTAL JOB OPENINGS 1985-1989
MANAGERIAL & ADMINISTRATIVE OCCUPATIONS	2,610	2,834	224	186	410
Financial Managers	161	169	8	13	21
Personnel, Training, & Labor Relations Mgrs.	66	68	2	4	6
Purchasing Managers	32	32	0	1	1
Marketing, Advertising, & Public Rel. Mgrs.	159	167	8	14	22
Administrative Services Managers	109	112	3	10	13
Engineering, Mathematical & Natural Sciences Mgrs.	118	123	5	12	17
Transportation, Communications, & Utilities Operations Managers	1,360	1,488	128	69	197
General Managers & Top Executives	438	494	56	46	102
All Other Managers & Administrators	167	181	14	17	31
PROFESSIONAL, PARAPROFESSIONAL, & TECHNICAL	4,515	4,782	267	390	657
Accountants & Auditors	155	163	8	17	25
Budget Analysts	62	64	2	7	9
All Other Financial Specialists	50	52	2	3	5
Purchasing Agents, Exc. Wholesale, Retail, & Farm	77	80	3	7	10
Personnel, Training, & Labor Rel. Specialists	121	127	6	9	15
All Other Management Support Workers	289	307	18	36	54
Chemical Engineers	28	28	0	1	1
Nuclear Engineers	27	28	1	1	2
Civil Engineers, Incl. Traffic	105	112	7	11	18
Electrical & Electronic Engineers	412	432	20	21	41
Industrial Engineers, Exc. Safety	63	65	2	4	6
Safety Engineers, Exc. Mining	22	22	0	0	0
Mechanical Engineers	145	153	8	8	16
All Other Engineers	28	29	1	0	1
Surveying & Mapping Scientists	20	20	0	0	0
Civil Engineering Technicians & Technologists	46	47	1	5	6
Electrical/Electronic Engineering Technicians	233	244	11	11	22
Mechanical Engineering Techs.	46	47	1	1	2
Drafters	106	111	5	7	12
Estimators & Drafters, Utilities	131	137	6	9	15
Surveying & Mapping Techs.	54	56	2	3	5
All Other Engineering & Related Technicians	53	55	2	4	6
Geologists, Geophysicists, & Oceanographers	29	30	1	1	2
All Other Physical Scientists	11	11	0	0	0
Life Scientists	36	37	1	3	4
All Other Physical & Life Science Techs.	4	4	0	0	0
Systems Analysts, Electronic Data Processing	152	159	7	5	12
Computer Programmers	108	113	5	4	9
Computer Programmer Aides	136	143	7	10	17
Mathematical Scientists	50	52	2	7	9
Social Scientists, Including Urban & Regional Planners	28	29	1	1	2
Lawyers	18	18	0	1	1
Farm & Home Management Advisors	36	37	1	2	3
All Other Teachers & Instructors	33	39	6	6	12
Health Practitioners, Technicians, & Related	21	21	0	4	4
Emergency Medical Technicians	334	398	64	76	140
All Other Health Professionals, Paraprofessionals & Technicians	10	11	1	2	3
Writers & Editors	34	34	0	5	5
Public Rel. Specialists & Publicity Writers	83	85	2	10	12
Reporters & Correspondents	109	115	6	19	25
Broadcast News Analysts	55	58	3	3	6
Announcers, Radio & Television	282	298	16	19	35
Photographers	46	48	2	4	6
Camera Operators, Television & Motion Picture	33	34	1	2	3
Broadcast Technicians	196	206	10	10	20
Film Editors	23	24	1	4	5
Artists & Related Workers	12	12	0	1	1
Producers, Directors, Actors, & Entertainers	67	70	3	7	10
All Other Professional, Paraprofessional, & Technical Workers	296	317	21	19	40

ESTIMATED EMPLOYMENT AND JOB OPENINGS  
TRANSPORTATION, COMMUNICATION, AND PUBLIC UTILITIES  
MARICOPA COUNTY (CONTD.)

	ESTIMATED MAY 1985 EMPLOYMENT	PROJECTED MAY 1989 EMPLOYMENT	JOB OPENINGS DUE TO GROWTH 1985-1989	JOB OPENINGS DUE TO SEPARATIONS 1985-1989	TOTAL JOB OPENINGS 1985-1989
<b>SALES &amp; RELATED OCCUPATIONS</b>	3,214	3,658	444	469	913
First Line Supervisors & Managers - Sales	252	280	28	31	59
Sales Agents, Selected Business Services	701	777	76	109	185
Travel Agents	1,217	1,452	235	178	413
Sales Agents, Advertising	292	307	15	37	52
Cashiers	108	119	11	18	29
All Other Sales & Related Workers	644	723	79	96	175
<b>CLERICAL &amp; ADMINISTRATIVE SUPPORT OCCUPATIONS</b>	10,415	11,505	1,090	1,688	2,778
First Line Supers.-Clerical & Admin. Support	528	583	55	64	119
Adjustment Clerks	482	521	39	99	138
Bill & Account Collectors	52	54	2	6	8
Reservation & Transportation Ticket Agents	780	930	150	103	253
Secretaries	679	741	62	147	209
Stenographers	46	48	2	9	11
Receptionists & Information Clerks	262	303	41	51	92
Typists	122	129	7	30	37
Typists, Word Processing Equipment	62	64	2	6	8
Personnel Clerks, Exc. Payroll & Timekeeping	84	87	3	19	22
File Clerks	16	17	1	2	3
Order Clerks - Materials, Merch., & Service	107	117	10	21	31
Statistical Clerks	175	184	9	37	46
Customer Service Representatives, Utilities	799	842	43	169	212
Bookkeeping, Accounting, & Auditing Clerks	794	897	103	148	251
Payroll & Timekeeping Clerks	54	57	3	7	10
Billing, Cost & Rate Clerks	185	210	25	35	60
General Office Clerks	793	869	76	161	237
Billing, Posting, & Calculating Machine Opers.	43	45	2	3	5
Computer Operators, Exc. Peripheral Equipment	72	75	3	4	7
Peripheral EDP Equipment Operators	140	148	8	30	38
Data Entry Keyers, Exc. Composing	208	222	14	11	25
All Other Office Machine Operators	16	16	0	3	3
Switchboard Operators	202	224	22	48	70
Directory Assistance Operators	257	271	14	68	82
Central Office Operators	300	316	16	79	95
All Other Communication Equipment Operators	31	34	3	5	8
Mail Clerks	8	8	0	1	1
Messengers	12	13	1	0	1
Dispatchers - Police, Fire, & Ambulance	37	44	7	4	11
Dispatchers - Exc. Police, Fire, & Ambulance	574	652	78	43	121
Production, Planning, & Expediting Clerks	156	167	11	30	41
Transportation Agents	764	911	147	102	249
Meter Readers, Utilities	205	215	10	13	23
Stock Clerks - Stockroom, Warehouse, or Yard	394	432	38	40	78
Traffic, Shipping, & Receiving Clerks	285	323	38	27	65
All Other Material Recording/Scheduling/Dist.	496	526	30	58	88
All Other Clerical & Administrative Support	195	210	15	5	20
<b>SERVICE OCCUPATIONS</b>	1,287	1,453	166	203	369
First Line Supers. & Mgrs./Supers. - Service	48	52	4	7	11
Detectives & Investigators, Exc. Public	10	10	0	0	0
Guards & Watch Guards	205	215	10	10	20
All Other Protective Service Workers	23	26	3	0	3
All Health Service Workers	15	17	2	1	3
Cleaning & Building Service Occupations	307	331	24	47	71
Guides	78	93	15	16	31
Baggage Porters & Bellhops	212	252	40	14	54
All Other Service Workers	389	457	68	108	176
<b>AGRICULTURAL, FORESTRY, &amp; RELATED OCCUPATIONS</b>	141	148	7	15	22

ESTIMATED EMPLOYMENT AND JOB OPENINGS  
TRANSPORTATION, COMMUNICATION, AND PUBLIC UTILITIES  
MARICOPA COUNTY (CONTD.)

	ESTIMATED MAY 1985 EMPLOYMENT	PROJECTED MAY 1989 EMPLOYMENT	JOB OPENINGS DUE TO GROWTH 1985-1989	JOB OPENINGS DUE TO SEPARATIONS 1985-1989	TOTAL JOB OPENINGS 1985-1989
PRODUCTION, MAINTENANCE, & MATERIAL HANDLING	18,432	20,925	2,493	1,648	4,141
First Line Managers/Supervisors - Mechanics/ Installers/Repairers	626	666	40	80	120
First Line Managers/Supervisors - Construction Trades & Extraction Workers	141	153	12	12	24
First Line Mgrs./Supers. - Transport. Operatives	288	338	50	54	104
First Line Mgrs./Supers. - Laborers & Helpers	96	113	17	18	35
All Other First Line Managers/Supervisors - Maintenance/Production/Construction	39	41	2	4	6
Precision Inspectors, Testers, & Graders	24	24	0	2	2
Transportation Inspectors	18	20	2	0	2
All Other Inspectors, Testers, & Related	68	78	10	9	19
Machinery Maintenance Mechanics, Water & Power Generation Plants	276	290	14	23	37
Maintenance Repairers, General Utility	271	288	17	18	35
Automotive Mechanics	194	215	21	12	33
Bus & Truck Mechs., & Diesel Eng. Specialists	471	548	77	37	114
Mobile Heavy Equip. Mechanics, Exc. Engines	7	7	0	0	0
Rail Car Repairers	51	60	9	8	17
Aircraft Mechanics	252	299	47	13	60
Aircraft Engine Specialists	60	70	10	1	11
Central Office & PBX Installers & Repairers	695	734	39	56	95
Frame Wriers, Central Office	93	98	5	5	10
Signal or Track Switch Maintainers	118	140	22	11	33
Radio Mechanics	123	129	6	7	13
All Other Communication Equipment Mechanics/ Installers/Repairers	37	37	0	0	0
Telephone & Cable TV Line Installers/Repairers	414	436	22	22	44
Electric Motor, Transformer, & Rel. Repairers	10	10	0	0	0
Electronics Repairers, Commercial & Ind. Equip.	98	103	5	4	9
Powerhouse, Substation, & Relay Electricians	90	95	5	5	10
Electrical Powerline Installers & Repairers	570	601	31	47	78
Station Installers & Repairers, Telephone	249	262	13	13	26
All Other Electrical Mechs./Installers/Repairers	299	328	29	20	49
Heating, Air Conditioning, & Refrigeration Mechanics & Installers	22	23	1	1	2
Precision Instrument Repairers	56	58	2	5	7
Electric Meter Installers & Repairers	91	95	4	4	8
Mechanical Control & Valve Installers & Repairers	20	20	0	0	0
Tire Repairers & Changers	30	35	5	3	8
All Other Mechanics, Installers, & Repairers	417	445	28	28	56
Carpenters	74	83	9	8	17
Electricians	86	90	4	8	12
Painters & Paperhangers - Construction & Maintenance	20	21	1	1	2
Plumbers, Pipefitters, & Steamfitters	53	60	7	3	10
Pipelayers	11	11	0	1	1
Insulation Workers	13	13	0	0	0
All Other Construction Trades Workers	21	24	3	1	4
All Other Construction & Extraction Workers, Exc. Helpers	200	238	38	26	64
Machinists	87	91	4	8	12
All Other Precision Workers	7	8	1	0	1
Painters, Transportation Equipment	17	19	2	1	3
All Other Machine Setters & Set-Up Operators	9	9	0	1	1
All Machine Operators & Tenders	10	11	1	0	1
Welders & Cutters	163	172	9	14	23
All Other Hand Workers	5	5	0	0	0
Water & Liquid Waste Treatment System Oper.	46	47	1	1	2
Power Generating Plant Oper., Exc. Aux. Equip.	75	78	3	9	12
Auxiliary Equipment Operators, Power	76	80	4	9	13
Power Reactor Operators	65	68	3	5	8

ESTIMATED EMPLOYMENT AND JOB OPENINGS  
TRANSPORTATION, COMMUNICATION, AND PUBLIC UTILITIES  
MARICOPA COUNTY (CONTD.)

	ESTIMATED MAY 1985 EMPLOYMENT	PROJECTED MAY 1989 EMPLOYMENT	JOB OPENINGS DUE TO GROWTH 1985-1989	JOB OPENINGS DUE TO SEPARATIONS 1985-1989	TOTAL JOB OPENINGS 1985-1989
Power Distributors & Dispatchers	161	169	8	12	20
Stationary Engineers	23	24	1	2	3
All Other Plant & System Operators	128	133	5	13	18
Truck Drivers, Heavy or Tractor Trailer	3,297	3,913	616	244	860
Truck Drivers, Light - Incl. Delivery & Route	1,597	1,895	298	116	414
Bus Drivers	696	829	133	90	223
Taxi Drivers & Chauffeurs	154	183	29	21	50
All Other Motor Vehicle Operators	53	63	10	7	17
Railroad Conductors & Yardmasters	287	342	55	48	103
Locomotive Engineers	287	342	55	64	119
Rail Yard Engineers, Dinkey Opers. & Hostlers	29	34	5	6	11
Locomotive Firers	98	117	19	7	26
Railroad Brake, Signal, & Switch Operators	612	730	118	67	185
All Other Rail Vehicle Opers. & Controllers	11	13	2	1	3
Aircraft Pilots & Flight Engineers	308	367	59	16	75
Service Station Attendants	46	52	6	2	8
All Other Transportation & Related Workers	188	220	32	20	52
Crane & Tower Operators	39	41	2	2	4
Industrial Truck & Tractor Operators	197	221	24	12	36
Operating Engineers	57	59	2	4	6
All Other Transportation & Moving Equip. Operators	16	17	1	0	1
All Material Moving Equipment Operators	66	71	5	4	9
Mechanic & Repairer Helpers	462	485	23	49	72
Helpers - Electricians & Powerline Installers	240	253	13	26	39
Helpers - All Other Construction Trades	151	159	8	16	24
Refuse Collectors	442	527	85	26	111
Vehicle Washers & Equipment Cleaners	95	112	17	9	26
All Other Helpers & Laborers	1,340	1,567	227	146	373
<b>TOTAL OF ALL OCCUPATIONS</b>	<b>40,614</b>	<b>45,305</b>	<b>4,691</b>	<b>4,599</b>	<b>9,290</b>

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL, PARAPROFESSIONAL, & TECHNICAL

All Other Engineers  
Engineers

All Other Teachers & Instructors  
Teachers & Instructors, Voc. Ed. & Training

CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS

All Other Clerical & Administrative Support  
Credit Authorizers

SERVICE OCCUPATIONS

All Other Protective Service Workers  
Railroad & Transit Police & Special Agents

All Health Service Workers  
Ambulance Drivers & Attendants - Exc.  
Emergency Medical Technicians

All Other Service Workers  
Flight Attendants

PRODUCTION, MAINTENANCE, & MATERIAL HANDLING

All Other Communication Equipment Mechanics/  
Installers/Repairers  
Telegraph & Teletype Installers & Maintainers

All Other Electrical Mechs./Installers/Repairers  
Electrical Installers & Repairers,  
Transportation Equipment

All Other Mechanics, Installers, & Repairers  
Machinery Maintenance Workers

All Other Construction & Extraction Workers,  
Exc. Helpers  
Rail-Track Laying & Maintenance Equip. Opers.  
Extraction & Related Workers - Incl. Blasters

All Other Hand Workers  
Hand Working, Inc. Assemblers & Fabricators

All Other Motor Vehicle Operators  
Bus Drivers, School

All Other Rail Vehicle Opers. & Controllers  
Subway & Streetcar Operators

All Other Helpers & Laborers  
Hand Packers & Packers



ESTIMATED EMPLOYMENT AND JOB OPENINGS  
TRANSPORTATION, COMMUNICATION, AND PUBLIC UTILITIES

MOHAVE COUNTY

	ESTIMATED MAY 1985 EMPLOYMENT	PROJECTED MAY 1989 EMPLOYMENT	JOB OPENINGS DUE TO GROWTH 1985-1989	JOB OPENINGS DUE TO SEPARATIONS 1985-1989	TOTAL JOB OPENINGS 1985-1989
MANAGERIAL & ADMINISTRATIVE OCCUPATIONS	64	65	1	0	1
Transportation, Communications, & Utilities					
Operations Managers	18	18	0	0	0
General Managers & Top Executives	25	26	1	0	1
All Other Managers & Administrators	21	21	0	0	0
PROFESSIONAL, PARAPROFESSIONAL, & TECHNICAL	128	136	8	5	13
Accountants & Auditors	7	7	0	0	0
All Other Financial Specialists	1	1	0	0	0
All Other Management Support Workers	11	11	0	0	0
Electrical & Electronic Engineers	6	6	0	0	0
All Other Engineers	14	16	2	1	3
Drafters	7	7	0	0	0
All Other Engineering & Related Technicians	19	19	0	0	0
All Teachers & Instructors	1	1	0	0	0
All Health Professionals,					
Paraprofessionals, & Technicians	15	16	1	3	4
Broadcast News Analysts	6	7	1	0	1
Announcers, Radio & Television	23	27	4	1	5
All Other Professional, Paraprofessional,					
& Technical Workers	18	18	0	0	0
SALES & RELATED OCCUPATIONS	108	117	9	10	19
First Line Supervisors & Managers - Sales	9	9	0	0	0
Sales Agents, Selected Business Services	29	32	3	3	6
Sales Agents, Advertising	17	20	3	2	5
All Sales Representatives & Salespersons, Service	28	31	3	3	6
Cashiers	19	19	0	2	2
All Other Sales & Related Workers	6	6	0	0	0
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	290	311	21	29	50
First Line Supers.-Clerical & Admin. Support	30	32	2	2	4
Adjustment Clerks	6	6	0	0	0
Bill & Account Collectors	10	11	1	1	2
Secretaries	26	27	1	2	3
Typists	18	21	3	4	7
Customer Service Representatives, Utilities	12	13	1	1	2
Bookkeeping, Accounting, & Auditing Clerks	21	21	0	1	1
Billing, Cost & Rate Clerks	12	12	0	0	0
General Office Clerks	26	27	1	4	5
Data Entry Keyers, Exc. Composing	7	7	0	0	0
All Other Office Machine Operators	3	3	0	0	0
Central Office Operators	47	55	8	12	20
All Other Communication Equipment Operators	2	2	0	0	0
Meter Readers, Utilities	18	20	2	0	2
Stock Clerks - Stockroom, Warehouse, or Yard	11	12	1	0	1
All Other Material Recording/Scheduling/Dist.	11	11	0	0	0
All Other Clerical & Administrative Support	30	31	1	2	3
SERVICE OCCUPATIONS	33	36	3	5	8
All Protective Service Workers	3	3	0	0	0
All Cleaning/Building Service, Exc.					
Private House	25	28	3	4	7
All Other Service Workers	5	5	0	1	1
PRODUCTION, MAINTENANCE, & MATERIAL HANDLING	430	465	35	15	50
First Line Managers/Supervisors - Mechanics/					
Installers/Repairers	25	26	1	1	2
All Other First Line Managers/Supervisors -					
Maintenance/Production/Construction	17	18	1	2	3
All Inspectors, Testers, & Related	4	4	0	0	0
Machinery Maintenance Mechanics, Water & Power					
Generation Plants	5	5	0	0	0
Maintenance Repairers, General Utility	9	9	0	0	0

ESTIMATED EMPLOYMENT AND JOB OPENINGS  
TRANSPORTATION, COMMUNICATION, AND PUBLIC UTILITIES  
MOHAVE COUNTY (CONTD.)

	ESTIMATED MAY 1985 EMPLOYMENT	PROJECTED MAY 1989 EMPLOYMENT	JOB OPENINGS DUE TO GROWTH 1985-1989	JOB OPENINGS DUE TO SEPARATIONS 1985-1989	TOTAL JOB OPENINGS 1985-1989
Automotive Mechanics	7	7	0	0	0
Bus & Truck Mechs., & Diesel Eng. Specialists	10	11	1	0	1
Central Office & PBX Installers & Repairers	11	12	1	0	1
All Other Communication Equipment Mechanics/ Installers/Repairers	7	7	0	0	0
Telephone & Cable TV Line Installers/Repairers	34	39	5	1	6
Electrical Powerline Installers & Repairers	29	33	4	1	5
All Other Electrical Mechs./Installers/Repairers	23	26	3	1	4
Gas Appliance Repairers	5	5	0	0	0
All Other Mechanics, Installers, & Repairers	20	20	0	0	0
All Construction Trades Workers	18	19	1	0	1
All Precision Workers	1	1	0	0	0
All Hand Workers	1	1	0	0	0
Water & Liquid Waste Treatment System Oper.	10	11	1	0	1
All Other Plant & System Operators	1	1	0	0	0
Truck Drivers, Heavy or Tractor Trailer	83	92	9	6	15
All Other Motor Vehicle Operators	27	29	2	2	4
All Transportation & Related Workers	25	27	2	0	2
All Transportation & Moving Equip. Operators	1	1	0	0	0
All Material Moving Equipment Operators	1	1	0	0	0
Mechanic & Repairer Helpers	10	11	1	0	1
Refuse Collectors	22	24	2	0	2
All Other Helpers & Laborers	24	25	1	1	2
TOTAL OF ALL OCCUPATIONS	1,053	1,130	77	64	141

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL, PARAPROFESSIONAL, & TECHNICAL

All Other Engineering & Related Technicians  
Electrical/Electronic Engineering Technicians

All Health Professionals,  
Paraprofessionals, & Technicians  
Emergency Medical Technicians

SALES & RELATED OCCUPATIONS

All Sales Representatives & Salespersons, Service  
Travel Agents

CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS

All Other Material Recording/Scheduling/Dist.  
Dispatchers - Exc. Police, Fire, & Ambulance

All Other Clerical & Administrative Support  
Reservation & Transportation Ticket Agents

PRODUCTION, MAINTENANCE, & MATERIAL HANDLING

All Other Electrical Mechs./Installers/Repairers  
Station Installers & Repairers, Telephone

All Other Mechanics, Installers, & Repairers  
Aircraft Mechanics

All Construction Trades Workers  
Electricians

All Other Motor Vehicle Operators  
Truck Drivers, Light - Incl. Delivery & Route  
Taxi Drivers & Chauffeurs

All Transportation & Related Workers  
Aircraft Pilots & Flight Engineers  
Service Station Attendants

All Other Helpers & Laborers  
Helpers - Electricians & Powerline Installers

ESTIMATED EMPLOYMENT AND JOB OPENINGS  
TRANSPORTATION, COMMUNICATION, AND PUBLIC UTILITIES  
NAVAJO COUNTY

	ESTIMATED MAY 1985 EMPLOYMENT	PROJECTED MAY 1989 EMPLOYMENT	JOB OPENINGS DUE TO GROWTH 1985-1989	JOB OPENINGS DUE TO SEPARATIONS 1985-1989	TOTAL JOB OPENINGS 1985-1989
MANAGERIAL & ADMINISTRATIVE OCCUPATIONS	63	67	4	2	6
Transportation, Communications, & Utilities					
Operations Managers	32	35	3	1	4
General Managers & Top Executives	16	17	1	1	2
All Other Managers & Administrators	15	15	0	0	0
PROFESSIONAL, PARAPROFESSIONAL, & TECHNICAL	97	108	11	6	17
All Financial Specialists	1	1	0	0	0
All Management Support Workers	45	52	7	6	13
Electrical & Electronic Engineers	11	12	1	0	1
All Other Engineers	9	10	1	0	1
All Engineering & Related Technicians	12	12	0	0	0
All Health Diagnosing & Treating					
Practitioners	1	1	0	0	0
Announcers, Radio & Television	13	15	2	0	2
All Other Professional, Paraprofessional, & Technical Workers	5	5	0	0	0
SALES & RELATED OCCUPATIONS	10	10	0	0	0
Sales Agents, Advertising	6	6	0	0	0
All Other Sales & Related Workers	4	4	0	0	0
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	317	351	34	41	75
First Line Supers.-Clerical & Admin. Support	13	14	1	1	2
Bill & Account Collectors	6	6	0	0	0
Secretaries	31	34	3	3	6
Order Clerks - Materials, Merch., & Service	38	44	6	8	14
Statistical Clerks	6	7	1	1	2
Customer Service Representatives, Utilities	24	27	3	4	7
Bookkeeping, Accounting, & Auditing Clerks	17	17	0	0	0
Payroll & Timekeeping Clerks	10	11	1	1	2
General Office Clerks	69	78	9	11	20
All Office Machine Operators	1	1	0	0	0
All Communication Equipment Operators	32	37	5	8	13
Meter Readers, Utilities	12	12	0	0	0
Stock Clerks - Stockroom, Warehouse, or Yard	22	24	2	1	3
All Other Material Recording/Scheduling/Dist.	23	25	2	2	4
All Other Clerical & Administrative Support	13	14	1	1	2
SERVICE OCCUPATIONS	18	19	1	3	4
All Cleaning/Building Service, Exc.					
Private House	18	19	1	3	4
AGRICULTURAL, FORESTRY, & RELATED OCCUPATIONS	2	2	0	0	0
PRODUCTION, MAINTENANCE, & MATERIAL HANDLING	691	768	77	45	122
First Line Managers/Supervisors - Mechanics/ Installers/Repairers	69	77	8	8	16
All Other First Line Managers/Supervisors - Maintenance/Production/Construction	21	22	1	1	2
All Inspectors, Testers, & Related	6	6	0	0	0
Automotive Mechanics	8	8	0	0	0
Bus & Truck Mechs., & Diesel Eng. Specialists	9	9	0	0	0
Central Office & PBX Installers & Repairers	19	22	3	1	4
All Other Communication Equipment Mechanics/ Installers/Repairers	6	6	0	0	0
Telephone & Cable TV Line Installers/Repairers	41	47	6	2	8
Powerhouse, Substation, & Relay Electricians	31	35	4	1	5
Electrical Powerline Installers & Repairers	27	31	4	2	6
Station Installers & Repairers, Telephone	25	29	4	1	5
All Other Electrical Mechs./Installers/Repairers	6	6	0	0	0
All Other Mechanics, Installers, & Repairers	60	66	6	3	9
All Construction Trades Workers	18	18	0	0	0
Machinists	13	15	2	1	3

ESTIMATED EMPLOYMENT AND JOB OPENINGS  
TRANSPORTATION, COMMUNICATION, AND PUBLIC UTILITIES  
NAVAJO COUNTY (CONTD.)

	ESTIMATED MAY 1985 EMPLOYMENT	PROJECTED MAY 1989 EMPLOYMENT	JOB OPENINGS DUE TO GROWTH 1985-1989	JOB OPENINGS DUE TO SEPARATIONS 1985-1989	TOTAL JOB OPENINGS 1985-1989
All Hand Workers	25	28	3	2	5
All Plant & System Operators	45	52	7	4	11
Truck Drivers, Heavy or Tractor Trailer	47	51	4	3	7
All Other Motor Vehicle Operators	16	17	1	1	2
All Rail Vehicle Oper. & Controllers	4	4	0	0	0
All Transportation & Related Workers	24	26	2	1	3
All Material Moving Equipment Operators	34	37	3	1	4
All Helpers & Laborers	137	156	19	13	32
TOTAL OF ALL OCCUPATIONS	1,198	1,325	127	97	224

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL, PARAPROFESSIONAL, & TECHNICAL

All Other Engineers  
Mechanical Engineers

CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS

All Communication Equipment Operators  
Central Office Operators

All Other Material Recording/Scheduling/Dist.  
Production, Planning, & Expediting Clerks

All Other Clerical & Administrative Support  
Billing, Cost & Rate Clerks

PRODUCTION, MAINTENANCE, & MATERIAL HANDLING

All Other First Line Managers/Supervisors -  
Maintenance/Production/Construction  
First Line Mgrs./Supers. - Transport. Operatives

All Other Mechanics, Installers, & Repairers  
Machinery Maintenance Mechanics, Water & Power  
Generation Plants

All Construction Trades Workers  
Plumbers, Pipefitters, & Steamfitters

All Hand Workers  
Welders & Cutters

All Other Motor Vehicle Operators  
Truck Drivers, Light - Incl. Delivery & Route

All Transportation & Related Workers  
Aircraft Pilots & Flight Engineers  
Service Station Attendants

All Material Moving Equipment Operators  
Industrial Truck & Tractor Operators

All Helpers & Laborers  
Helpers - Electricians & Powerline Installers

ESTIMATED EMPLOYMENT AND JOB OPENINGS  
TRANSPORTATION, COMMUNICATION, AND PUBLIC UTILITIES

PIMA COUNTY

	ESTIMATED MAY 1985 EMPLOYMENT	PROJECTED MAY 1989 EMPLOYMENT	JOB OPENINGS DUE TO GROWTH 1985-1989	JOB OPENINGS DUE TO SEPARATIONS 1985-1989	TOTAL JOB OPENINGS 1985-1989
MANAGERIAL & ADMINISTRATIVE OCCUPATIONS	486	509	23	26	49
Financial Managers	32	32	0	0	0
Personnel, Training, & Labor Relations Mgrs.	10	10	0	0	0
Purchasing Managers	5	5	0	0	0
Marketing, Advertising, & Public Rel. Mgrs.	39	40	1	3	4
Administrative Services Managers	14	14	0	0	0
Engineering, Mathematical and Natural Sciences Mgrs	16	16	0	1	1
Transportation, Communications, & Utilities Operations Managers	166	175	9	5	14
General Managers & Top Executives	182	195	13	16	29
All Other Managers & Administrators	22	22	0	1	1
PROFESSIONAL, PARAPROFESSIONAL, & TECHNICAL	1,035	1,079	44	68	112
Accountants & Auditors	51	52	1	3	4
All Other Financial Specialists	13	13	0	1	1
Purchasing Agents, Exc. Wholesale, Retail, & Farm	15	15	0	1	1
Personnel, Training, & Labor Rel. Specialists	18	18	0	0	0
All Other Management Support Workers	18	18	0	1	1
Electrical & Electronic Engineers	148	155	7	7	14
Mechanical Engineers	9	9	0	0	0
All Other Engineers	26	27	1	1	2
Electrical/Electronic Engineering Technicians	82	85	3	3	6
Mechanical Engineering Techs.	7	7	0	0	0
Drafters	25	25	0	1	1
All Other Engineering & Related Technicians	51	52	1	2	3
All Physical Scientists	1	1	0	0	0
All Life Scientists	3	3	0	0	0
All Physical & Life Science Techs.	1	1	0	0	0
Systems Analysts, Electronic Data Processing	46	47	1	0	1
Computer Programmers	13	13	0	0	0
All Mathematical Scientists	2	2	0	0	0
All Social Scientists	1	1	0	0	0
All Teachers & Instructors	8	8	0	0	0
Emergency Medical Technicians	100	113	13	22	35
All Other Health Professionals, Paraprofessionals & Technicians	1	1	0	0	0
Public Rel. Specialists & Publicity Writers	9	9	0	0	0
Reporters & Correspondents	35	37	2	6	8
Broadcast News Analysts	24	25	1	1	2
Announcers, Radio & Television	147	156	9	10	19
Photographers	21	22	1	2	3
Camera Operators, Television & Motion Picture	32	33	1	1	2
Broadcast Technicians	66	69	3	3	6
Film Editors	14	14	0	2	2
Artists & Related Workers	8	8	0	0	0
Producers, Directors, Actors, & Entertainers	7	7	0	0	0
All Other Professional, Paraprofessional, & Technical Workers	33	33	0	1	1
SALES & RELATED OCCUPATIONS	626	686	60	81	141
First Line Supervisors & Managers - Sales	51	53	2	3	5
Sales Agents, Selected Business Services	140	149	9	18	27
Travel Agents	314	357	43	45	88
Sales Agents, Advertising	66	70	4	8	12
Cashiers	30	31	1	4	5
All Other Sales & Related Workers	25	26	1	3	4
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	2,212	2,337	1 25	325	450
First Line Supers.-Clerical & Admin. Support	125	132	7	12	19
Credit Managers	6	6	0	1	1
Adjustment Clerks	136	143	7	27	34
Bill & Account Collectors	9	9	0	0	0

ESTIMATED EMPLOYMENT AND JOB OPENINGS  
TRANSPORTATION, COMMUNICATION, AND PUBLIC UTILITIES  
PIMA COUNTY (CONTD.)

	ESTIMATED MAY 1985 EMPLOYMENT	PROJECTED MAY 1989 EMPLOYMENT	JOB OPENINGS DUE TO GROWTH 1985-1989	JOB OPENINGS DUE TO SEPARATIONS 1985-1989	TOTAL JOB OPENINGS 1985-1989
Reservation & Transportation Ticket Agents	71	79	8	8	16
Secretaries	114	119	5	19	24
Stenographers	19	19	0	3	3
Receptionists & Information Clerks	26	27	1	2	3
Typists	76	79	3	17	20
Typists, Word Processing Equipment	19	20	1	2	3
Personnel Clerks, Exc. Payroll & Timekeeping	7	7	0	1	1
Order Clerks - Materials, Merch., & Service	13	13	0	2	2
Statistical Clerks	53	56	3	11	14
Customer Service Representatives, Utilities	212	224	12	44	56
Bookkeeping, Accounting, & Auditing Clerks	150	157	7	22	29
Payroll & Timekeeping Clerks	19	19	0	1	1
Billing, Cost & Rate Clerks	57	61	4	9	13
General Office Clerks	173	183	10	31	41
Billing, Posting, & Calculating Machine Opers.	21	21	0	1	1
Computer Operators, Exc. Peripheral Equipment	23	23	0	0	0
Data Entry Keyers, Exc. Composing	27	28	1	0	1
All Other Office Machine Operators	13	14	1	2	3
Switchboard Operators	26	26	0	4	4
Directory Assistance Operators	66	70	4	17	21
All Other Communication Equipment Operators	153	162	9	40	49
Dispatchers - Exc. Police, Fire, & Ambulance	108	117	9	5	14
Production, Planning, & Expediting Clerks	50	52	2	10	12
Meter Readers, Utilities	79	82	3	4	7
Stock Clerks - Stockroom, Warehouse, or Yard	248	273	25	25	50
Traffic, Shipping, & Receiving Clerks	21	21	0	0	0
All Other Material Recording/Scheduling/Dist.	34	36	2	1	3
All Other Clerical & Administrative Support	58	59	1	4	5
<b>SERVICE OCCUPATIONS</b>	<b>185</b>	<b>199</b>	<b>14</b>	<b>19</b>	<b>33</b>
First Line Supers. & Mgrs./Supers. - Service	5	5	0	0	0
Guards & Watch Guards	10	10	0	0	0
All Other Protective Service Workers	11	12	1	0	1
All Health Service Workers	67	76	9	8	17
Cleaning and Building Service Occupations	40	40	0	3	3
All Other Service Workers	52	56	4	8	12
<b>PRODUCTION, MAINTENANCE, &amp; MATERIAL HANDLING</b>	<b>3,639</b>	<b>3,941</b>	<b>302</b>	<b>280</b>	<b>582</b>
First Line Managers/Supervisors - Mechanics/ Installers/Repairers	132	137	5	14	19
First Line Managers/Supervisors - Construction Trades & Extraction Workers	45	47	2	3	5
First Line Mgrs./Supers. - Transport. Operatives	36	39	3	7	10
First Line Mgrs./Supers. - Laborers & Helpers	11	12	1	2	3
All Other First Line Managers/Supervisors - Maintenance/Production/Construction	70	74	4	11	15
Precision Inspectors, Testers, & Graders	18	19	1	1	2
All Other Inspectors, Testers, & Related	12	12	0	0	0
Machinery Maintenance Mechanics, Water & Power Generation Plants	14	14	0	0	0
All Other Machinery Maintenance Mechanics	1	1	0	0	0
Maintenance Repairers, General Utility	61	64	3	3	6
Automotive Mechanics	56	58	2	1	3
Bus & Truck Mechs., & Diesel Eng. Specialists	75	84	9	6	15
Mobile Heavy Equip. Mechanics, Exc. Engines	9	9	0	0	0
Aircraft Mechanics	92	103	11	4	15
Central Office & PBX Installers & Repairers	179	190	11	14	25
Frame Wriers, Central Office	30	31	1	1	2
Radio Mechanics	60	63	3	3	6
All Other Communication Equipment Mechanics/ Installers/Repairers	1	1	0	0	0
Telephone & Cable TV Line Installers/Repairers	205	216	11	11	22
Electronics Repairers, Commercial & Ind. Equip.	105	110	5	5	10

ESTIMATED EMPLOYMENT AND JOB OPENINGS  
TRANSPORTATION, COMMUNICATION, AND PUBLIC UTILITIES  
PIMA COUNTY (CONTD.)

	ESTIMATED MAY 1985 EMPLOYMENT	PROJECTED MAY 1989 EMPLOYMENT	JOB OPENINGS DUE TO GROWTH 1985-1989	JOB OPENINGS DUE TO SEPARATIONS 1985-1989	TOTAL JOB OPENINGS 1985-1989
Powerhouse, Substation, & Relay Electricians	48	50	2	2	4
Electrical Powerline Installers & Repairers	271	286	15	20	35
Station Installers & Repairers, Telephone	70	74	4	3	7
All Other Electrical Mechs./Installers/Repairers	25	26	1	1	2
Mechanical Control & Valve Installers & Repairers	24	25	1	1	2
Gas Appliance Repairers	58	61	3	6	9
All Other Mechanics, Installers, & Repairers	53	55	2	3	5
Carpenters	9	9	0	0	0
All Other Construction Trades Workers	51	53	2	2	4
All Other Construction & Extraction Workers, Exc. Helpers	2	2	0	0	0
All Precision Metal Workers	1	1	0	0	0
All Precision Workers	9	9	0	0	0
Boiler Operators & Tenders, Low Pressure	8	8	0	0	0
All Machine Setters & Set-Up Operators	1	1	0	0	0
All Other Machine Operators & Tenders	10	10	0	0	0
Welders & Cutters	25	26	1	2	3
Gas Plant Operators	7	7	0	0	0
Power Generating Plant Opers., Exc. Aux. Equip.	7	7	0	0	0
Power Distributors & Dispatchers	11	11	0	0	0
All Other Plant & System Operators	23	23	0	0	0
Truck Drivers, Heavy or Tractor Trailer	422	476	54	30	84
Truck Drivers, Light - Incl. Delivery & Route	290	327	37	19	56
Bus Drivers	304	344	40	38	78
Taxi Drivers & Chauffeurs	123	138	15	17	32
All Transportation & Related Workers	38	42	4	1	5
All Transportation & Moving Equip. Operators	10	11	1	0	1
All Material Moving Equipment Operators	11	12	1	0	1
Mechanic & Repairer Helpers	161	170	9	16	25
Helpers - All Other Construction Trades	25	26	1	2	3
Vehicle Washers & Equipment Cleaners	30	33	3	1	4
All Other Helpers & Laborers	300	334	34	30	64
TOTAL OF ALL OCCUPATIONS	8,183	8,751	568	799	1,367

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follow:

PROFESSIONAL, PARAPROFESSIONAL, & TECHNICAL

All Other Engineering & Related Technicians  
Surveying & Mapping Techs.

All Other Health Professionals,  
Paraprofessionals & Technicians  
Health Practitioners, Technicians, & Related

All Other Professional, Paraprofessional,  
& Technical Workers  
Writers & Editors

CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS

All Other Office Machine Operators  
Peripheral EDP Equipment Operators

All Other Communication Equipment Operators  
Central Office Operators

All Other Material Recording/Scheduling/Dist.  
Dispatchers - Police, Fire, & Ambulance  
Transportation Agents

All Other Clerical & Administrative Support  
Travel Clerks  
Correspondence Clerks

ESTIMATED EMPLOYMENT AND JOB OPENINGS  
TRANSPORTATION, COMMUNICATION, AND PUBLIC UTILITIES  
PIMA COUNTY (CONTD.)

SERVICE OCCUPATIONS

All Other Protective Service Workers  
Railroad & Transit Police & Special Agents

All Health Service Workers  
Ambulance Drivers & Attendants - Exc.  
Emergency Medical Technicians

All Other Service Workers  
Guides  
Baggage Porters & Bellhops  
Flight Attendants

PRODUCTION, MAINTENANCE, & MATERIAL HANDLING

All Other Mechanics, Installers, & Repairers  
Electric Meter Installers & Repairers  
Tire Repairers & Changers

All Other Construction Trades Workers  
Electricians

All Other Machine Operators & Tenders  
Painters, Transportation Equipment

All Transportation & Related Workers  
Aircraft Pilots & Flight Engineers  
Service Station Attendants

All Material Moving Equipment Operators  
Industrial Truck & Tractor Operators

All Other Helpers & Laborers  
Hand Packers & Packagers



ESTIMATED EMPLOYMENT AND JOB OPENINGS  
TRANSPORTATION, COMMUNICATION, AND PUBLIC UTILITIES

PINAL COUNTY

	ESTIMATED MAY 1985 EMPLOYMENT	PROJECTED MAY 1989 EMPLOYMENT	JOB OPENINGS DUE TO GROWTH 1985-1989	JOB OPENINGS DUE TO SEPARATIONS 1985-1989	TOTAL JOB OPENINGS 1985-1989
MANAGERIAL & ADMINISTRATIVE OCCUPATIONS	52	54	2	0	2
Transportation, Communications, & Utilities					
Operations Managers	23	25	2	0	2
General Managers & Top Executives	12	12	0	0	0
All Other Managers & Administrators	17	17	0	0	0
PROFESSIONAL, PARAPROFESSIONAL, & TECHNICAL	71	75	4	5	9
All Financial Specialists	1	1	0	0	0
All Management Support Workers	17	18	1	1	2
All Engineers	3	3	0	0	0
All Engineering & Related Technicians	9	9	0	0	0
All Teachers & Instructors	2	2	0	0	0
All Health Professionals,					
Paraprofessionals, & Technicians	17	18	1	3	4
Announcers, Radio & Television	16	18	2	1	3
All Other Professional, Paraprofessional,					
& Technical Workers	6	6	0	0	0
SALES & RELATED OCCUPATIONS	45	47	2	3	5
Sales Agents, Advertising	7	7	0	0	0
All Sales Representatives & Salespersons, Service	19	20	1	1	2
All Other Sales & Related Workers	19	20	1	2	3
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	153	164	11	13	24
First Line Supers.-Clerical & Admin. Support	8	8	0	0	0
Secretaries	8	8	0	0	0
Customer Service Representatives, Utilities	33	37	4	5	9
Bookkeeping, Accounting, & Auditing Clerks	13	13	0	0	0
General Office Clerks	26	29	3	3	6
All Office Machine Operators	3	3	0	0	0
Central Office Operators	7	8	1	1	2
All Other Communication Equipment Operators	10	11	1	1	2
Production, Planning, & Expediting Clerks	11	12	1	2	3
Stock Clerks - Stockroom, Warehouse, or Yard	6	6	0	0	0
All Other Material Recording/Scheduling/Dist.	20	21	1	1	2
All Other Clerical & Administrative Support	8	8	0	0	0
SERVICE OCCUPATIONS	67	72	5	8	13
All Service Supervisors & Managers	3	3	0	0	0
Guards & Watch Guards	1	1	0	0	0
All Other Protective Service Workers	10	11	1	0	1
All Other Food Service Workers	27	29	2	4	6
Cleaning And Building Service Occupations	26	28	2	4	6
PRODUCTION, MAINTENANCE, & MATERIAL HANDLING	483	526	43	24	67
First Line Managers/Supervisors - Mechanics/					
Installers/Repairers	16	17	1	1	2
First Line Mgrs./Supers. - Transport. Operatives	7	7	0	0	0
All Other First Line Managers/Supervisors -					
Maintenance/Production/Construction	3	3	0	0	0
Transportation Inspectors	10	11	1	1	2
Machinery Maintenance Mechanics, Water & Power					
Generation Plants	24	27	3	1	4
Maintenance Repairers, General Utility	11	12	1	0	1
Aircraft Engine Specialists	28	31	3	1	4
All Communication Equipment Mechanics/					
Installers/Repairers	15	15	0	0	0
Electrical Powerline Installers & Repairers	25	29	4	2	6
Station Installers & Repairers, Telephone	6	7	1	0	1
All Other Electrical Mechs./Installers/Repairers	17	18	1	0	1
Gas Appliance Repairers	11	12	1	1	2
All Other Mechanics, Installers, & Repairers	94	102	8	4	12

ESTIMATED EMPLOYMENT AND JOB OPENINGS  
TRANSPORTATION, COMMUNICATION, AND PUBLIC UTILITIES  
PINAL COUNTY (CONTD.)

	ESTIMATED MAY 1985 EMPLOYMENT	PROJECTED MAY 1989 EMPLOYMENT	JOB OPENINGS DUE TO GROWTH 1985-1989	JOB OPENINGS DUE TO SEPARATIONS 1985-1989	TOTAL JOB OPENINGS 1985-1989
All Construction Trades Workers	16	17	1	0	1
All Precision Metal Workers	2	2	0	0	0
All Precision Workers	1	1	0	0	0
Painters, Transportation Equipment	22	24	2	2	4
All Other Machine Operators & Tenders	3	3	0	0	0
Welders & Cutters	11	12	1	0	1
All Other Hand Workers	21	23	2	2	4
Power Generating Plant Opers., Exc. Aux. Equip.	14	16	2	1	3
Auxiliary Equipment Operators, Power	9	10	1	1	2
All Other Plant & System Operators	4	4	0	0	0
All Motor Vehicle Operators	22	24	2	1	3
All Rail Vehicle Opers. & Controllers	23	24	1	1	2
All Transportation & Related Workers	12	13	1	1	2
All Material Moving Equipment Operators	6	6	0	0	0
Helpers - Electricians & Powerline Installers	17	20	3	1	4
All Other Helpers & Laborers	33	36	3	3	6
TOTAL OF ALL OCCUPATIONS	871	938	67	53	120

Confidential data for certain occupations have been added to "All" or All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL, PARAPROFESSIONAL, & TECHNICAL

All Other Health Professionals,  
Paraprofessionals, & Technicians  
Emergency Medical Technicians

SALES & RELATED OCCUPATIONS

All Other Sales Representatives & Salespersons, Service  
Sales Agents, Selected Business Services  
Travel Agents  
All Other Sales & Related Workers  
Cashiers

CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS

All Other Communication Equipment Operators  
Switchboard Operators  
  
All Other Material Recording/Scheduling/Dist.  
Meter Readers, Utilities  
Traffic, Shipping, & Receiving Clerks

SERVICE OCCUPATIONS

All Food Service Workers  
Food & Beverage Service Occupations

PRODUCTION, MAINTENANCE, & MATERIAL HANDLING

All Other Electrical Mechs./Installers/Repairers  
Electronics Repairers, Commercial & Ind. Equip.

All Other Mechanics, Installers, & Repairers  
Bus & Truck Mechs., & Diesel Eng. Specialists  
Aircraft Mechanics

All Other Motor Vehicle Operators  
Truck Drivers, Heavy or Tractor Trailer

All Other Material Moving Equipment Operators  
Industrial Truck & Tractor Operators

All Other Helpers & Laborers  
Hand Packers & Packagers

ESTIMATED EMPLOYMENT AND JOB OPENINGS  
TRANSPORTATION, COMMUNICATION, AND PUBLIC UTILITIES  
SANTA CRUZ COUNTY

	ESTIMATED MAY 1985 EMPLOYMENT	PROJECTED MAY 1989 EMPLOYMENT	JOB OPENINGS DUE TO GROWTH 1985-1989	JOB OPENINGS DUE TO SEPARATIONS 1985-1989	TOTAL JOB OPENINGS 1985-1989
MANAGERIAL & ADMINISTRATIVE OCCUPATIONS	40	41	1	2	3
Transportation, Communications, & Utilities Operations Managers	7	7	0	0	0
General Managers & Top Executives	25	26	1	2	3
All Other Managers & Administrators	8	8	0	0	0
PROFESSIONAL, PARAPROFESSIONAL, & TECHNICAL	17	18	1	0	1
All Financial Specialists	2	2	0	0	0
All Management Support Workers	2	2	0	0	0
All Engineers	1	1	0	0	0
All Engineering & Related Technicians	2	2	0	0	0
All Other Professional, Paraprofessional, & Technical Workers	10	11	1	0	1
SALES & RELATED OCCUPATIONS	25	26	1	1	2
ALL Sales Representatives & Salespersons, Service	14	15	1	1	2
All Other Sales & Related Workers	11	11	0	0	0
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	224	238	14	24	38
First Line Supers.-Clerical & Admin. Support	11	11	0	1	1
Secretaries	12	12	0	1	1
Order Clerks - Materials, Merch., & Service	38	42	4	8	12
Bookkeeping, Accounting, & Auditing Clerks	18	19	1	2	3
Billing, Cost & Rate Clerks	11	11	0	1	1
General Office Clerks	31	33	2	5	7
All Office Machine Operators	48	53	5	3	8
All Communication Equipment Operators	3	3	0	0	0
Dispatchers - Exc. Police, Fire, & Ambulance	11	12	1	0	1
All Other Material Recording/Scheduling/Dist.	20	20	0	0	0
All Other Clerical & Administrative Support	21	22	1	3	4
SERVICE OCCUPATIONS	5	5	0	0	0
PRODUCTION, MAINTENANCE, & MATERIAL HANDLING	228	244	16	13	29
First Line Managers/Supervisors - Mechanics/ Installers/Repairers	9	10	1	0	1
All Other First Line Managers/Supervisors - Maintenance/Production/Construction	5	5	0	0	0
All Inspectors, Testers, & Related	1	1	0	0	0
Bus & Truck Mechs., & Diesel Eng. Specialists	9	10	1	0	1
All Communication Equipment Mechanics/ Installers/Repairers	1	1	0	0	0
All Electrical Mechs./Installers/Repairers	6	6	0	0	0
All Construction & Extraction Workers, Exc. Helpers	1	1	0	0	0
All Other Mechanics, Installers, & Repairers	19	20	1	0	1
All Hand Workers	1	1	0	0	0
All Plant & System Operators	4	4	0	0	0
Truck Drivers, Heavy or Tractor Trailer	45	49	4	3	7
Bus Drivers, School	22	24	2	2	4
All Other Motor Vehicle Operators	9	9	0	1	1
All Transportation & Related Workers	44	49	5	5	10
All Material Moving Equipment Operators	10	10	0	0	0
All Helpers & Laborers	42	44	2	2	4
TOTAL OF ALL OCCUPATIONS	539	572	33	40	73

ESTIMATED EMPLOYMENT AND JOB OPENINGS  
TRANSPORTATION, COMMUNICATION, AND PUBLIC UTILITIES  
SANTA CRUZ COUNTY (CONTD.)

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL, PARAPROFESSIONAL, & TECHNICAL

All Other Professional, Paraprofessional,  
& Technical Workers  
Announcers, Radio & Television

SALES & RELATED OCCUPATIONS

All Other Sales Representatives & Salespersons, Service  
Travel Agents

CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS

All Office Machine Operators  
Data Entry Keyers, Exc. Composing

All Other Material Recording/Scheduling/Dist.  
Traffic, Shipping, & Receiving Clerks

All Other Clerical & Administrative Support  
Typists

PRODUCTION, MAINTENANCE, & MATERIAL HANDLING

All Other Mechanics, Installers, & Repairers  
Automotive Mechanics

All Material Moving Equipment Operators  
Industrial Truck & Tractor Operators

All Helpers & Laborers  
Hand Packers & Packagers

ESTIMATED EMPLOYMENT AND JOB OPENINGS  
TRANSPORTATION, COMMUNICATION, AND PUBLIC UTILITIES

YAVAPAI COUNTY

	ESTIMATED MAY 1985 EMPLOYMENT	PROJECTED MAY 1989 EMPLOYMENT	JOB OPENINGS DUE TO GROWTH 1985-1989	JOB OPENINGS DUE TO SEPARATIONS 1985-1989	TOTAL JOB OPENINGS 1985-1989
MANAGERIAL & ADMINISTRATIVE OCCUPATIONS	57	60	3	1	4
Transportation, Communications, & Utilities					
Operations Managers	26	29	3	0	3
General Managers & Top Executives	24	24	0	1	1
All Other Managers & Administrators	7	7	0	0	0
PROFESSIONAL, PARAPROFESSIONAL, & TECHNICAL	151	168	17	14	31
All Management Support Workers	10	11	1	1	2
Electrical & Electronic Engineers	14	15	1	0	1
Electrical/Electronic Engineering Technicians	13	15	2	0	2
Estimators & Drafters, Utilities	8	9	1	0	1
Surveying & Mapping Techs.	7	8	1	0	1
All Other Engineering & Related Technicians	5	5	0	0	0
All Physical Scientists	1	1	0	0	0
All Health Professionals,					
Paraprofessionals & Technicians	51	56	5	11	16
Announcers, Radio & Television	34	40	6	2	8
All Other Professional, Paraprofessional,					
& Technical Workers	8	8	0	0	0
SALES & RELATED OCCUPATIONS	63	69	6	6	12
First Line Supervisors & Managers - Sales	4	4	0	0	0
Sales Agents, Selected Business Services	18	20	2	2	4
Travel Agents	26	28	2	3	5
Sales Agents, Advertising	12	14	2	1	3
All Other Sales & Related Workers	3	3	0	0	0
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	177	186	9	14	23
First Line Supers.-Clerical & Admin. Support	12	12	0	0	0
Secretaries	18	19	1	2	3
Bookkeeping, Accounting, & Auditing Clerks	21	22	1	1	2
Billing, Cost & Rate Clerks	9	9	0	0	0
General Office Clerks	16	16	0	0	0
All Office Machine Operators	7	7	0	1	1
Central Office Operators	21	24	3	5	8
Dispatchers - Exc. Police, Fire, & Ambulance	8	8	0	0	0
Meter Readers, Utilities	10	11	1	0	1
All Other Material Recording/Scheduling/Dist.	15	15	0	0	0
All Other Clerical & Administrative Support	40	43	3	5	8
SERVICE OCCUPATIONS	1	1	0	0	0
PRODUCTION, MAINTENANCE, & MATERIAL HANDLING	410	449	39	22	61
First Line Managers/Supervisors - Mechanics/ Installers/Repairers	30	33	3	3	6
All Other First Line Managers/Supervisors - Maintenance/Production/Construction	6	6	0	0	0
All Other Inspectors, Testers, & Related	1	1	0	0	0
Automotive Mechanics	9	9	0	0	0
Central Office & PBX Installers & Repairers	8	9	1	0	1
Radio Mechanics	10	11	1	0	1
All Other Communication Equipment Mechanics/ Installers/Repairers	3	3	0	0	0
Electrical Powerline Installers & Repairers	22	25	3	1	4
Station Installers & Repairers, Telephone	8	9	1	0	1
All Other Electrical Mechs./Installers/Repairers	17	19	2	0	2
Gas Appliance Repairers	10	11	1	1	2
All Other Mechanics, Installers, & Repairers	72	80	8	3	11
All Construction Trades Workers	5	5	0	0	0
All Plant & System Operators	2	2	0	0	0
Truck Drivers, Heavy or Tractor Trailer	45	49	4	3	7
All Other Motor Vehicle Operators	111	123	12	8	20

ESTIMATED EMPLOYMENT AND JOB OPENINGS  
TRANSPORTATION, COMMUNICATION, AND PUBLIC UTILITIES  
YAVAPAI COUNTY (CONTD.)

	ESTIMATED MAY 1985 EMPLOYMENT	PROJECTED MAY 1989 EMPLOYMENT	JOB OPENINGS DUE TO GROWTH 1985-1989	JOB OPENINGS DUE TO SEPARATIONS 1985-1989	TOTAL JOB OPENINGS 1985-1989
All Transportation & Related Workers	1	1	0	0	0
All Transportation Moving Equip. Operators	3	3	0	0	0
All Material Moving Equipment Operators	5	5	0	0	0
All Helpers & Laborers	42	45	3	3	6
TOTAL OF ALL OCCUPATIONS	859	933	74	57	131

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL, PARAPROFESSIONAL, & TECHNICAL

All Other Health Professionals,  
Paraprofessionals & Technicians  
Emergency Medical Technicians

CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS

All Other Clerical & Administrative Support  
Typists  
Customer Service Representatives, Utilities

PRODUCTION, MAINTENANCE, & MATERIAL HANDLING

All First Line Managers/Supervisors -  
Maintenance/Production/Construction  
First Line Mgrs./Supers. - Transport. Operatives

All Other Electrical Mechs./Installers/Repairers  
Telephone & Cable TV Line Installers/Repairers

All Other Mechanics, Installers, & Repairers  
Maintenance Repairers, General Utility  
Mechanical Control & Valve Installers &  
Repairers

All Other Motor Vehicle Operators  
Truck Drivers, Light - Incl. Delivery & Route

All Helpers & Laborers  
Hand Packers & Packagers

ESTIMATED EMPLOYMENT AND JOB OPENINGS  
TRANSPORTATION, COMMUNICATION, AND PUBLIC UTILITIES

YUMA COUNTY

	ESTIMATED MAY 1985 EMPLOYMENT	PROJECTED MAY 1989 EMPLOYMENT	JOB OPENINGS DUE TO GROWTH 1985-1989	JOB OPENINGS DUE TO SEPARATIONS 1985-1989	TOTAL JOB OPENINGS 1985-1989
MANAGERIAL & ADMINISTRATIVE OCCUPATIONS	34	35	1	0	1
Transportation, Communications, & Utilities					
Operations Managers	16	17	1	0	1
General Managers & Top Executives	9	9	0	0	0
All Other Managers & Administrators	9	9	0	0	0
PROFESSIONAL, PARAPROFESSIONAL, & TECHNICAL	76	80	4	3	7
All Financial Specialists	4	4	0	0	0
All Management Support Workers	5	5	0	0	0
All Engineers	11	11	0	0	0
All Engineering & Related Technicians	8	8	0	0	0
All Teachers & Instructors	5	5	0	1	1
Broadcast News Analysts	5	5	0	0	0
Announcers, Radio & Television	28	32	4	2	6
All Other Professional, Paraprofessional, & Technical Workers	10	10	0	0	0
SALES & RELATED OCCUPATIONS	64	70	6	7	13
Travel Agents	42	46	4	5	9
Sales Agents, Advertising	15	17	2	2	4
All Sales Representatives & Salespersons, Service	3	3	0	0	0
All Other Sales & Related Workers	4	4	0	0	0
CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS	170	180	10	13	23
First Line Supers.-Clerical & Admin. Support	11	11	0	0	0
Secretaries	16	16	0	1	1
Customer Service Representatives, Utilities	39	45	6	7	13
Bookkeeping, Accounting, & Auditing Clerks	24	25	1	1	2
General Office Clerks	23	24	1	2	3
All Office Machine Operators	5	5	0	0	0
Central Office Operators	7	8	1	1	0
All Other Communication Equipment Operators	4	4	0	0	2
Dispatchers - Exc. Police, Fire, & Ambulance	8	8	0	0	0
Meter Readers, Utilities	6	7	1	0	1
Stock Clerks - Stockroom, Warehouse, or Yard	11	11	0	0	0
All Other Material Recording/Scheduling/Dist.	7	7	0	0	0
All Other Clerical & Administrative Support	9	9	0	1	1
SERVICE OCCUPATIONS	23	24	1	2	3
All Service Supervisors & Managers	1	1	0	0	0
All Cleaning/Building Service, Exc.					
Private House	12	13	1	1	2
All Other Service Workers	10	10	0	1	1
PRODUCTION, MAINTENANCE, & MATERIAL HANDLING	430	468	38	15	53
First Line Managers/Supervisors - Mechanics/ Installers/Repairers	24	26	2	2	4
All Other First Line Managers/Supervisors - Maintenance/Production/Construction	3	3	0	0	0
Bus & Truck Mechs., & Diesel Eng. Specialists	12	13	1	0	1
Aircraft Mechanics	17	18	1	0	1
Central Office & PBX Installers & Repairers	6	7	1	0	1
All Other Communication Equipment Mechanics/ Installers/Repairers	14	15	1	0	1
Electrical Powerline Installers & Repairers	29	34	5	1	6
Station Installers & Repairers, Telephone	8	9	1	0	1
All Other Electrical Mechs./Installers/Repairers	28	31	3	1	4
Electric Meter Installers & Repairers	6	7	1	0	1
All Other Mechanics, Installers, & Repairers	24	26	2	0	2
All Construction & Extraction Workers, Exc. Helpers	4	4	0	0	0
All Precision Workers	7	7	0	0	0
All Hand Workers	1	1	0	0	0
All Plant & System Operators	17	17	0	0	0

ESTIMATED EMPLOYMENT AND JOB OPENINGS  
TRANSPORTATION, COMMUNICATION, AND PUBLIC UTILITIES  
YUMA COUNTY (CONTD.)

	ESTIMATED MAY 1985 EMPLOYMENT	PROJECTED MAY 1989 EMPLOYMENT	JOB OPENINGS DUE TO GROWTH 1985-1989	JOB OPENINGS DUE TO SEPARATIONS 1985-1989	TOTAL JOB OPENINGS 1985-1989
Truck Drivers, Heavy or Tractor Trailer	78	86	8	5	13
All Other Motor Vehicle Operators	19	20	1	1	2
All Transportation & Related Workers	26	28	2	1	3
All Transportation & Moving Equip. Operators	14	15	1	0	1
Mechanic & Repairer Helpers	17	19	2	1	3
All Freight & Material Movers, Hand	14	15	1	0	1
All Other Helpers & Laborers	62	67	5	3	8
TOTAL OF ALL OCCUPATIONS	797	857	60	40	100

Confidential data for certain occupations have been added to "All" or "All Other" categories or collapsed into major occupational classes as follows:

PROFESSIONAL, PARAPROFESSIONAL, & TECHNICAL

All Engineers  
Electrical & Electronic Engineers

All Engineering & Related Technicians  
Estimators & Drafters, Utilities

All Teachers & Instructors  
Teachers & Instructors, Voc. Ed. & Training

All Other Professional, Paraprofessional,  
& Technical Workers  
Broadcast Technicians

CLERICAL & ADMINISTRATIVE SUPPORT OCCUPATIONS

All Other Material Recording/Scheduling/Dist.  
Traffic, Shipping, & Receiving Clerks

PRODUCTION, MAINTENANCE, & MATERIAL HANDLING

All Other Electrical Mechs./Installers/Repairers  
Telephone & Cable TV Line Installers/Repairers

All Other Mechanics, Installers, & Repairers  
Machinery Maintenance Mechanics, Water & Power  
Generation Plants

All Plant & System Operators  
Auxiliary Equipment Operators, Power  
Power Reactor Operators

All Other Motor Vehicle Operators  
Truck Drivers, Light - Incl. Delivery & Route

All Transportation & Related Workers  
Aircraft Pilots & Flight Engineers

All Transportation & Moving Equip. Operators  
Industrial Truck & Tractor Operators  
Operating Engineers

All Freight & Material Movers, Hand  
Refuse Collectors



# METHODOLOGY

## Sample Selection and Response Rates

Occupational estimates for the transportation, communications, and public utilities industry were developed from a survey of employers throughout the state. Employers who were asked to participate in the survey were selected from a master employer file of firms doing business in Arizona, using standardized sampling techniques. A sample of establishments employing 4-249 employees, and all establishments having 250 or more employees were surveyed. The entire sample was composed of 758 firms with a usable response rate of 91 percent. Firms responding represented 95 percent of the industry's employment in Arizona.

## Employment Projections

Projecting occupational employment and demand is accomplished in two basic stages. First, total industry employment is estimated for the target years. These forecasts are computed using an econometric model driven by forecast values for variables such as national unemployment, interest rates, and industrial production. Staffing pattern ratios, as determined by the OES survey, are then applied to the industry employment projections--representing the second stage of the forecasting methodology.

## Job Openings

"Total Job Openings" represents the sum of openings resulting from expansion and replacement during the projection period. Expansion is the numerical difference in employment for a given period. Replacement represents job openings that transpire due to separations from the labor force, i.e., death, retirement, and pregnancy. The "Total Job Openings" column does not account for labor turnover, i.e., openings created when a worker changes jobs, leaving the job to be filled by someone else. These vacancies are generally the largest source of job openings.

## Limitations of the Data

The projection method does not account for cyclical, seasonal, and such external factors as sudden discontinuations or initiations of major government programs.

Employment forecasts for the nonmetropolitan counties are based on growth rates developed for the "balance of state" (Arizona less Maricopa and Pima counties) rather than for individual counties.

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